

STIC-Biotech/ChemLib

121 752

From: Chan, Christina  
Sent: Tuesday, May 11, 2004 11:21 AM  
To: Basi, Nirmal; STIC-Biotech/ChemLib  
Subject: RE: Rush for App. #: 10/032,108

Please rush. Thanks Chris

Chris Chan

TC 1600 New Hire Training Coordinator and SPE 1644 & 1642  
(571)-272-0841  
Remsen, 3E89

-----Original Message-----

From: Basi, Nirmal  
Sent: Tuesday, May 11, 2004 11:19 AM  
To: Chan, Christina  
Subject: Rush for App. #: 10/032,108

Christina I am seeking approval for a RUSH sequence search, as indicated below. If approved, could you please forward the search to STIC and cc a copy to me.

Christina I am seeking approval for a RUSH sequence search, as indicated below. If approved, could you please forward the search to STIC and cc a copy to me.

Examiner: Nirmal S. Basi  
Art Unit 1646  
Office: Remsen Building, Room 4D68  
Mail Room: Remsen Building, room 4C70

Sequence search:

App. #: 10/032,108  
Result format: Paper.

Title: G-CSF ANALOG COMPOSITIONS AND METHODS  
Inventors: OSSLUND, TIMOTHY DAVID

Priority Date: 01/28/93

Please search:

i) SEQ ID NO:2

ii) If possible please also search SEQ ID NO:2 where in the lysine at position 17, 35 and 41 is substituted with arginine.

Search commercial, issued and interference database.

Searcher: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Location: \_\_\_\_\_  
Date Picked Up: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Searcher Prep/Review: \_\_\_\_\_  
Clerical: \_\_\_\_\_  
Online time: \_\_\_\_\_

TYPE OF SEARCH:  
NA Sequences: \_\_\_\_\_  
AA Sequences: \_\_\_\_\_  
Structures: \_\_\_\_\_  
Bibliographic: \_\_\_\_\_  
Litigation: \_\_\_\_\_  
Full text: \_\_\_\_\_  
Patent Family: \_\_\_\_\_  
Other: \_\_\_\_\_

VENDOR/COST (where applic.)  
STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
Questel/Orbit: \_\_\_\_\_  
DRLink: \_\_\_\_\_  
Lexis/Nexis: \_\_\_\_\_  
Sequence Sys.: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other (specify): \_\_\_\_\_

Thanks,  
Nirmal S. Basi

Searcher: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Location: \_\_\_\_\_  
Date Picked Up: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Searcher Prep/Review: \_\_\_\_\_  
Clerical: \_\_\_\_\_  
Online time: \_\_\_\_\_

TYPE OF SEARCH:  
NA Sequences: \_\_\_\_\_  
AA Sequences: \_\_\_\_\_  
Structures: \_\_\_\_\_  
Bibliographic: \_\_\_\_\_  
Litigation: \_\_\_\_\_  
Full text: \_\_\_\_\_  
Patent Family: \_\_\_\_\_  
Other: \_\_\_\_\_

VENDOR/COST (where applic.)  
STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
Questel/Orbit: \_\_\_\_\_  
DRLink: \_\_\_\_\_  
Lexis/Nexis: \_\_\_\_\_  
Sequence Sys.: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other (specify): \_\_\_\_\_

FILE 'MEDLINE'  
FILE 'JAPIO'  
FILE 'BIOSIS'  
FILE 'SCISEARCH'  
FILE 'WPIDS'  
FILE 'CAPLUS'  
FILE 'EMBASE'.

=> S GRANULOCYTE COLONY STIMULATING FACTOR OR  
GCSF OR G-CSF  
L1 64738 GRANULOCYTE COLONY STIMULATING  
FACTOR OR GCSF OR G-CSF

=> S L1 AND LYSINE# AND ARGININE#  
L2 37 L1 AND LYSINE# AND ARGININE#

=> S L2 NAD POLY ETHYLENE GLYCOL#  
MISSING OPERATOR L2 NAD  
The search profile that was entered contains  
terms or  
nested terms that are not separated by a  
logical operator.

=> S L2 AND POLYETHYLENE GLYCOL#  
L3 5 L2 AND POLYETHYLENE GLYCOL#

=> S L1 AND ANALOG#  
L4 1237 L1 AND ANALOG#

=> S L4 AND LYSINE#  
L5 13 L4 AND LYSINE#

=> S L4 AND ARGININE#  
L6 20 L4 AND ARGININE#

=> DUP REM L2  
PROCESSING COMPLETED FOR L2  
L7 30 DUP REM L2 (7 DUPLICATES  
REMOVED)

=> DUP REM L5  
PROCESSING COMPLETED FOR L5  
L8 12 DUP REM L5 (1 DUPLICATE  
REMOVED)

=> DUP REM L6  
PROCESSING COMPLETED FOR L6  
L9 19 DUP REM L6 (1 DUPLICATE  
REMOVED)

=> D IBIB ABS L7 1-30

L7 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 2004:270081 CAPLUS  
DOCUMENT NUMBER: 140:298619  
TITLE: Improved recombinant  
adeno-assocd. virus (rAAV)  
expression systems  
for genetic modification of  
specific capsid  
proteins and therapeutic applications  
INVENTOR(S): Warrington, Kenneth  
H.; Opie, Shaun R.; Muzyczka,  
Nicholas  
PATENT ASSIGNEE(S): University of Florida  
Research Foundation, Inc., USA  
SOURCE: PCT Int. Appl., 180  
pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO. KIND DATE  
APPLICATION NO. DATE  
-----  
WO 2004027019 A2 20040401 WO  
2003-US13583 20030501  
W: AE, AG, AL, AM, AT, AU, AZ, BA,  
BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ,  
EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SC, SD, SE, SG,  
SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, YU, ZA,  
ZM, ZW, AM, AZ, BY, KG, KZ, MD,  
RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL,  
SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC,  
NL, PT, RO, SE, SI, SK, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG  
PRIORITY APPLN. INFO.: US  
2002-377315P P 20020501  
AB Disclosed are improved recombinant adeno-  
assocd. viral (rAAV) vectors  
having mutations in one or more capsid  
proteins. Exemplary vectors are  
provided that have altered affinity for  
heparin/heparin sulfate, as well  
as vectors, expression systems, and rAAV  
virions that lack functional VP2  
protein expression, but are nevertheless,  
fully virulent. Also provided  
by the invention are rAAV vector-based  
compsns., virus particles, host  
cells, and pharmaceutical formulations  
that comprise them useful in the  
expression of selected therapeutic  
proteins, polypeptides, peptides,  
antisense oligonucleotides and/or  
ribozymes in selected mammals, including  
organs, tissues, and human host cells.  
Different rAAV2 capsid mutant  
plasmids, such as pIM45-VP1,3, pIM45-  
VP1,2 and pIM45-VP2,3 were provided.

L7 ANSWER 2 OF 30 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN DUPLICATE 1  
ACCESSION NUMBER: 2003-239422 [23] WPIDS  
DOC. NO. CPI: C2003-061519  
TITLE: New fusion protein  
having a protein of interest and a  
fusion partner that  
comprises an amino acid sequence at  
its C-terminus that can  
be cleaved by ubiquitin cleavage  
enzyme, useful for  
separating protein of interest from  
fusion protein.  
DERWENT CLASS: B04 D16

INVENTOR(S): CHO, T H; KIM, J M; LEE, U J; PARK, H B; PARK, Y S; CHO, T; KIM, J; LEE, W; PARK, H; PARK, Y  
PATENT ASSIGNEE(S): (ADPR-N) ADVANCED PROTEIN TECHNOLOGIES INC; (SAMY-N) SAMYANG GENEX CORP  
COUNTRY COUNT: 101  
PATENT INFORMATION:

|       | PATENT NO                        | KIND                             | DATE     | WEEK         |
|-------|----------------------------------|----------------------------------|----------|--------------|
| LA    | PG                               |                                  |          |              |
| ----- |                                  |                                  |          |              |
| 43    | WO 2003010204                    | A1                               | 20030206 | (200323)* EN |
|       | RW:                              | AT BE BG CH CY CZ DE DK EA EE ES |          |              |
| FI    | FR GB GH GM GR IE IT KE LS LU    |                                  |          |              |
|       | MC MW MZ NL OA PT SD SE SK SL SZ |                                  |          |              |
| TR    | TZ UG ZM ZW                      |                                  |          |              |
|       | W:                               | AE AG AL AM AT AU AZ BA BB BG BR |          |              |
| BY    | BZ CA CH CN CO CR CU CZ DE DK    |                                  |          |              |
|       | DM DZ EC EE ES FI GB GD GE GH GM |                                  |          |              |
| HR    | HU ID IL IN IS JP KE KG KP KZ    |                                  |          |              |
|       | LC LK LR LS LT LU LV MA MD MG MK |                                  |          |              |
| MN    | MW MX MZ NO NZ OM PH PL PT RO    |                                  |          |              |
|       | RU SD SE SG SI SK SL TJ TM TN TR |                                  |          |              |
| TT    | TZ UA UG US UZ VN YU ZA ZM ZW    |                                  |          |              |
|       | KR 2003010536                    | A                                | 20030205 | (200338)     |
|       | EP 1417237                       | A1                               | 20040512 | (200431) EN  |
|       | R:                               | AL AT BE BG CH CY CZ DE DK EE ES |          |              |
| FI    | FR GB GR IE IT LI LT LU LV MC    |                                  |          |              |
|       | MK NL PT RO SE SI SK TR          |                                  |          |              |

APPLICATION DETAILS:

|             | PATENT NO     | KIND | DATE |
|-------------|---------------|------|------|
| APPLICATION |               |      |      |
| -----       |               |      |      |
|             | WO 2003010204 | A1   | WO   |
| 2002-KR1416 | 20020726      |      |      |
|             | KR 2003010536 | A    | KR   |
| 2002-43968  | 20020725      |      |      |
|             | EP 1417237    | A1   | EP   |
| 2002-753269 | 20020726      |      |      |
|             |               |      | WO   |
| 2002-KR1416 | 20020726      |      |      |

FILING DETAILS:

|            | PATENT NO  | KIND        |
|------------|------------|-------------|
| PATENT NO  |            |             |
| -----      |            |             |
|            | EP 1417237 | A1 Based on |
| 2003010204 |            | WO          |

PRIORITY APPLN. INFO: KR 2002-43968  
20020725; KR

2001-45229

20010726

AN 2003-239422 [23] WPIDS

AB WO2003010204 A UPAB: 20030407

NOVELTY - A fusion protein comprising a protein of interest and a fusion

partner that comprises an amino acid

sequence at its C-terminus, which can

be cleaved by ubiquitin cleavage enzyme, and has a difference in

isoelectric point of 1 or more from the protein of interest, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a process for separating a protein of interest from a fusion protein by expressing the fusion protein in a host cell, loading the fusion protein on matrix, which the fusion partner can adsorb, treating the adsorbed matrix with ubiquitin cleavage enzyme, and eluting the cleaved protein of interest from the matrix. Alternatively, this method comprises expressing the fusion protein in a host cell, loading the fusion protein on matrix, which the fusion partner can adsorb, recovering the fusion protein from the matrix, treating the recovered fusion protein with ubiquitin cleavage enzyme, and separating the protein of interest from the fusion partner by using the adsorption difference on the matrix.

USE - The method and fusion protein are useful for separating a protein of interest from a fusion protein (claimed).

ADVANTAGE - The invention provides a process for conveniently and efficiently separating a protein of interest in high yield.

Dwg.0/9

L7 ANSWER 3 OF 30 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN DUPLICATE 2  
ACCESSION NUMBER: 2003-576375 [54] WPIDS  
DOC. NO. CPI: C2003-155601  
TITLE: Novel solid lipophilic microparticle useful for in vivo delivery of drug, comprises lipophilic substance, hyaluronic acid or its inorganic salt, and an active ingredient e.g. protein or peptide drug.

DERWENT CLASS: A96 B04 B07  
INVENTOR(S): KIM, J; KIM, M; KIM, S; KWON, K

PATENT ASSIGNEE(S): (KIMJ-I) KIM J; (KIMM-I) KIM M; (KIMS-I) KIM S; (KWON-I) KWON K

COUNTRY COUNT: 1

PATENT INFORMATION:

|       | PATENT NO     | KIND | DATE     | WEEK      |
|-------|---------------|------|----------|-----------|
| LA    | PG            |      |          |           |
| ----- |               |      |          |           |
| 13    | US 2003064105 | A1   | 20030403 | (200354)* |

APPLICATION DETAILS:

|             | PATENT NO     | KIND      |
|-------------|---------------|-----------|
| APPLICATION |               |           |
| -----       |               |           |
|             | US 2003064105 | A1 CIP of |
| 2000-648196 |               | 20000825  |

2002-160784 20020603 US

PRIORITY APPLN. INFO: US 2002-160784  
20020603; US

2000-648196

20000825

AN 2003-576375 [54] WPIDS

AB US2003064105 A UPAB: 20030821

NOVELTY - Solid lipophilic microparticle (I) comprises a lipophilic substance, hyaluronic acid or its inorganic salt, and an active ingredient chosen from a protein drug and a peptide drug, where the active ingredient is coated with hyaluronic acid or an inorganic salt of it at first to form a solid microparticle, and then, the surface of the solid microparticle is coated with the lipophilic substance.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a dispersion formulation (II) prepared by dispersing (I) in a lipophilic medium;

(2) an oil-in- water emulsion formulation (III) comprising an aqueous injection medium and (II); and

(3) an aerosol formulation comprising (I).

USE - (I) is useful for in vivo delivering of active ingredients such as protein or peptide drug.

ADVANTAGE - (I) has an improved stability and effective delivery of a drug.

Dwg.1/3

L7 ANSWER 4 OF 30 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2003-421352 [39] WPIDS

DOC. NO. CPI: C2003-110999

TITLE: Preparation of spray-dried, drug-containing particles useful for pulmonary delivery of drug and for treating disease involves modulating the charge density of the particles.

DERWENT CLASS: B04 B07 D16

INVENTOR(S): LEHRMAN, S R; STEVENSON, C; YANG, B

PATENT ASSIGNEE(S): (INHA-N) INHALE THERAPEUTIC SYSTEMS INC

COUNTRY COUNT: 101

PATENT INFORMATION:

| LA    | PATENT NO                            | KIND  | DATE     | WEEK         |
|-------|--------------------------------------|-------|----------|--------------|
| ----- | -----                                | ----- | -----    | -----        |
| 22    | WO 2003035028                        | A1    | 20030501 | (200339)* EN |
|       | RW: AT BE BG CH CY CZ DE DK EA EE ES |       |          |              |
|       | FI FR GB GH GM GR IE IT KE LS LU     |       |          |              |
|       | MC MW MZ NL OA PT SD SE SK SL SZ     |       |          |              |
|       | TR TZ UG ZM ZW                       |       |          |              |
|       | W: AE AG AL AM AT AU AZ BA BB BG BR  |       |          |              |
|       | BY BZ CA CH CN CO CR CU CZ DE DK     |       |          |              |

DM DZ EC EE ES FI GB GD GE GH GM

HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG

MK MN MW MX MZ NO NZ OM PH PL PT

RO RU SD SE SG SI SK SL TJ TM TN

TR TT TZ UA UG US UZ VC VN YU ZA

ZM ZW

APPLICATION DETAILS:

| PATENT NO     | KIND | DATE     |
|---------------|------|----------|
| WO 2003035028 | A1   | 20021016 |
| 2002-US33016  |      |          |

PRIORITY APPLN. INFO: US 2001-330073P

20011019

AN 2003-421352 [39] WPIDS

AB WO2003035028 A UPAB: 20030619

NOVELTY - Preparation (M) of spray-dried, drug containing particles comprising combining an aqueous solution with a drug and an optional excipient, and spray drying the solution to form the spray-dried, drug-containing particles, is new.

DETAILED DESCRIPTION - In M, the aqueous solution has a pH that is different from the effective pI of the combination of the drug and the excipient. The net charge is associated with the drug and optional excipient as a result of an absolute difference between the pH and the pI.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - M is useful for producing spray-dried, drug-containing particles; in the treatment of disease (claimed) useful for pulmonary delivery of drug.

ADVANTAGE - The formulation is stable and the dispersibility of the formulation can be maintained over 12-weeks; exhibits a drop in emitted dose of not more than 25% over 12-weeks; has moisture content of 6 wt.%. The mass median aerodynamic diameter (MMAD) of the spray-dried drug-containing particles is 0.1 - 5 mu m. The bulk density of the formulation is 0.1 - 2 g/cm3. The method improves, maintains and optimizes the dispersibility of the particles. The formulation shows improvement in aerosol properties, thus reducing costly drug losses to the inhalation device; reducing the amount administered due to high aerosolization efficiency, and reducing the number of inhalations per day by increasing the amount of aerosolized drug that reaches the lungs of the patient.

Dwg.0/0

L7 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:717744 CAPLUS

DOCUMENT NUMBER: 139:208231  
TITLE: Cysteine derivatives  
of GM-CSF and related proteins,  
and therapeutic uses  
thereof  
INVENTOR(S): Cox, George N.;  
Doherty, Daniel H.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl.  
Publ., 56 pp., Cont.-in-part of U. S.  
Ser. No. 462,941.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.   | KIND     | DATE     |    |
|--|----------|----------|----|
| APPLICATION NO.  | DATE     |          |    |
| US 2003171284  | A1       | 20030911 | US |
| 2002-298148  | 20021115 |          |    |
| WO 9903887   | A1       | 19990128 | WO |
| 1998-US14497   | 19980713 |          |    |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |          |          |    |
| US 6608183   | B1       | 20030819 | US |
| 2000-462941  | 20000114 |          |    |
| PRIORITY APPLN. INFO.:   |          |          | US |
| 1997-52516P  | P        | 19970714 | WO |
| 1998-US14497   | W        | 19980713 | US |
| 2000-462941  | A2       | 20000114 | US |
| 2001-332285P   | P        | 20011115 | US |
| 2002-418040P   | P        | 20021011 |    |
| AB The growth hormone supergene family comprises greater than 20 structurally related cytokines and growth factors. A general method is provided for creating site-specific, biol. active conjugates of these proteins. The method involves adding cysteine residues to non-essential regions of the proteins or substituting cysteine residues for non-essential amino acids in the proteins using site-directed mutagenesis and then covalently coupling a cysteine-reactive polymer or other type of cysteine-reactive moiety to the proteins via the added cysteine residue. Disclosed herein are preferred sites for adding cysteine residues or introducing cysteine |          |          |    |

substitutions into the proteins, and the proteins and protein derivs. produced thereby. Also disclosed are therapeutic methods for using the cysteine variants of the invention.

L7 ANSWER 6 OF 30 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN  
ACCESSION NUMBER: 2002-590578 [63] WPIDS  
DOC. NO. NON-CPI: N2002-468664  
DOC. NO. CPI: C2002-167041  
TITLE: Dispensing a therapeutic agent in situ to a localized region e.g. a tumor  
useful for gene therapy comprises administering a polymer composition, a cross-linking composition and the therapeutic agent to the region.  
DERWENT CLASS: A96 B04 B05 D16 P31  
INVENTOR(S): AZHDARINIA, A; KIM, E E; LEE, T L; YANG, D J; YU, D  
PATENT ASSIGNEE(S): (TEXA) UNIV TEXAS SYSTEM  
COUNTRY COUNT: 99  
PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK         |
|---|------|----------|--------------|
| LA  | PG   |          |              |
| WO 2002049501   | A2   | 20020627 | (200263)* EN |
| 116   |      |          |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW   |      |          |              |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZM ZW |      |          |              |
| AU 2002031041   | A    | 20020701 | (200264)     |
| EP 1355566  | A2   | 20031029 | (200379) EN  |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR  |      |          |              |

#### APPLICATION DETAILS:

| PATENT NO     | KIND     | DATE |    |
|---------------|----------|------|----|
| APPLICATION   |          |      |    |
| WO 2002049501 | A2       |      | WO |
| 2001-US49087  | 20011218 |      |    |
| AU 2002031041 | A        |      | AU |
| 2002-31041    | 20011218 |      |    |
| EP 1355566    | A2       |      | EP |
| 2001-991306   | 20011218 |      |    |
| 2001-US49087  | 20011218 |      | WO |

#### FILING DETAILS:

| PATENT NO | KIND |
|-----------|------|
| PATENT NO |      |
|           |      |

AU 2002031041 A Based on WO  
2002049501  
EP 1355566 A2 Based on WO  
2002049501

PRIORITY APPLN. INFO: US 2000-256514P  
20001218

AN 2002-590578 [63] WPIDS  
AB WO 200249501 A UPAB: 20021031  
NOVELTY - Dispensing (M1) a therapeutic agent in situ to a localized region in an individual comprising administering a biocompatible polymer composition (a), a cross-linking composition (b) and the therapeutic agent to the region to allow formation of a cross-linked polymer in situ at the region, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) treating a tumor in situ, occluding an artery associated with a tumor in an individual or providing a slow-release hydrogel composition in situ to a tumor involving administering to the tumor (a), (b) and the therapeutic agent; and

(2) a kit for treating a tumor in situ and for occluding an artery associated with a tumor in an individual comprising, a first container with (a) and a second container with (b) in a container.

ACTIVITY - Cytostatic; Antitumor.

Rats with mammary tumor were used in the study. Cisplatin was

suspended in sodium alginate to prepare SA-CDDP (5.4 mg cisplatin/ml). The

SA-CDDP (0.1 ml, cisplatin dose was 3 mg/kg body weight) was injected

directly into the tumors. Calcium chloride (8% in water) was then injected into the same place to form cisplatin-loaded alginate beads in the tumors.

The tumor size was measured to determine the anticancer effect and blood chemical assay (blood urea nitrogen (BUN) and serum creatinine) were

performed to detect renal toxicity. After injection, tumor volume

decreased as a function of time. No tumor relapse had occurred in the rats

5 months after treatment. BUN and serum creatinine levels after

intratumoral injection of SA-CDDP was in the normal range. On day 40, BUN

in five experimental rats and five healthy rats (control) were 18.30 plus

or minus 1.51 mg/dl and 17.88 plus or minus 2.24 mg/dl respectively. Serum

creatinine levels were the same as in both experimental and control rats

(0.6 mg/dl). In rats treated with CDDP intratumorally, a clear

nephrotoxicity was observed as evidenced by increased BUN and creatinine levels.

MECHANISM OF ACTION - None given.

USE - (M1) is used for dispensing a therapeutic agent in situ to a

localized region in an individual, for treating a tumor in situ, for occluding an artery associated with a tumor and for providing a slow-release hydrogel composition in situ to a tumor (claimed), gene therapy, brachytherapy, transcatheter arterial chemoembolization and/or intralesional injection.

ADVANTAGE - (M1) administers in situ an anticancer drug with high loading yields for a drug carrier, absence of leakage into surrounding tissues, lower cost, ease of process and better treatment response. (M1) allows correct dosing, is relatively easy to perform, is cost-effective and generates little waste of expensive chemotherapeutics. (M1) is also useful for tumors where removal by surgery is not a viable option (claimed).  
Dwg.0/9

L7 ANSWER 7 OF 30 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-415697 [44] WPIDS

CROSS REFERENCE: 2002-404689 [43]; 2002-425749 [45]; 2002-527345 [56]

DOC. NO. CPI: C2002-117304

TITLE: New synthetic protein, useful for inducing erythropoiesis

or apoptosis or reducing inflammation, comprising

pseudoamino acid residue with a ribosomally-specified

amino acid sidechain attached to thiol.

DERWENT CLASS: B04

INVENTOR(S): BOTTI, P; BRADBURN, J

A; CHEN, S; CRESSMAN, S; HUNTER, C

L; KENT, S B H;

KOCHENDOERFER, G; LOW, D W;

KOCHENDOERFER, G G;

WILKEN, J G

PATENT ASSIGNEE(S): (GRYP-N) GRYPHON SCI;

(GRYP-N) GRYPHON THERAPEUTICS INC;

(BOTT-I) BOTTI P; (BRAD-

I) BRADBURN J A; (CHEN-I) CHEN

S; (CRES-I) CRESSMAN S;

(HUNT-I) HUNTER C L; (KENT-I)

KENT S B H; (KOCH-I)

KOCHENDOERFER G G; (LOWD-I) LOW D W

COUNTRY COUNT: 84

PATENT INFORMATION:

|  | PATENT NO | KIND | DATE | WEEK |
|--|-----------|------|------|------|
|--|-----------|------|------|------|

|       |    |  |  |  |
|-------|----|--|--|--|
| LA    | PG |  |  |  |
| ----- |    |  |  |  |

|     |               |    |          |              |
|-----|---------------|----|----------|--------------|
| 110 | WO 2002020034 | A1 | 20020314 | (200244)* EN |
|-----|---------------|----|----------|--------------|

RW: AT BE CH CY DE DK EA ES FI FR GB  
GH GM GR IE IT KE LS LU MC MW MZ

NL OA PT SD SE SL SZ TR TZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA

CH CN CU CZ DE DK EE ES FI GB GE

GH HU IL IS JP KE KG KP KR KZ LC

LK LR LS LT LU LV MD MG MK MN MW

MX NO NZ PL PT RO RU SD SE SG SI

SK SL TJ TM TR TT UA UG US UZ VN





receptors, ligands etc.  
Dwg.0/7

L7 ANSWER 8 OF 30 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN  
ACCESSION NUMBER: 2002-303913 [34] WPIDS  
DOC. NO. CPI: C2002-088338  
TITLE: New active branched  
biocompatible polymers comprise long  
length of polymer linker  
with functional group to  
conjugate with  
biologically active proteins or peptides.  
DERWENT CLASS: A96 B04 D16  
INVENTOR(S): CHO, S H; LEE, K C;  
PARK, M O; CHO, S  
PATENT ASSIGNEE(S): (LEEK-I) LEE K; (PARK-I)  
PARK M; (LEEK-I) LEE K C;  
(PARK-I) PARK M O  
COUNTRY COUNT: 96  
PATENT INFORMATION:

| PATENT NO                            | KIND | DATE     | WEEK         |
|--------------------------------------|------|----------|--------------|
| LA PG                                |      |          |              |
| -----                                |      |          |              |
| WO 2002009766                        | A1   | 20020207 | (200234)* EN |
| 47                                   |      |          |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB |      |          |              |
| GH GM GR IE IT KE LS LU MC MW MZ     |      |          |              |
| NL OA PT SD SE SL SZ TR TZ UG ZW     |      |          |              |
| W: AE AG AL AM AT AU AZ BA BB BG BR  |      |          |              |
| BY BZ CA CH CN CO CR CU CZ DE DK     |      |          |              |
| DM DZ EC EE ES FI GB GD GE GH GM     |      |          |              |
| HR HU ID IL IN IS JP KE KG KP KZ     |      |          |              |
| LC LK LR LS LT LU LV MA MD MG MK     |      |          |              |
| MN MW MX MZ NO NZ PL PT RO RU SD     |      |          |              |
| SE SG SI SK SL TJ TM TR TT TZ UA     |      |          |              |
| UG US UZ VN YU ZA ZW                 |      |          |              |
| AU 2002024597                        | A    | 20020213 | (200238)     |
| KR 2002010363                        | A    | 20020204 | (200254)     |
| KR 396983                            | B    | 20030902 | (200412)     |

APPLICATION DETAILS:

| PATENT NO     | KIND     | DATE |
|---------------|----------|------|
| -----         |          |      |
| WO 2002009766 | A1       |      |
| 2001-KR1209   | 20010713 | WO   |
| AU 2002024597 | A        | AU   |
| 2002-24597    | 20010713 |      |
| KR 2002010363 | A        | KR   |
| 2000-44046    | 20000729 |      |
| KR 396983     | B        | KR   |
| 2000-44046    | 20000729 |      |

FILING DETAILS:

| PATENT NO     | KIND             | DATE |
|---------------|------------------|------|
| -----         |                  |      |
| AU 2002024597 | A Based on       | WO   |
| 2002009766    |                  |      |
| KR 396983     | B Previous Publ. | KR   |
| 2002010363    |                  |      |

PRIORITY APPLN. INFO: KR 2000-44046  
20000729

AN 2002-303913 [34] WPIDS  
AB WO 200209766 A UPAB: 20040218  
NOVELTY - Active branched biocompatible  
polymer derivatives (I) comprising  
a long length of polymer linker with  
functional group to conjugate with  
biologically active proteins or peptides,  
are new.

DETAILED DESCRIPTION - An  
INDEPENDENT CLAIM is included for  
protein-polymer or peptide-polymer  
conjugates produced by reaction of (I)  
with biologically active protein or  
peptide.

ACTIVITY - None given in the source  
material.

MECHANISM OF ACTION - None given in  
the source material.

USE - Used for producing protein-  
polymer or peptide-polymer  
conjugates (claimed) useful as  
therapeutic drugs in medicines.

ADVANTAGE - The linker conjugates a  
reduced number of polymer  
derivatives to the active sites of  
proteins, and does not decrease the  
biological activity of the proteins or  
peptides. The conjugates are stable  
from protease degradation, have improved  
water solubility, reduce the  
steric hindrance in active sites of  
proteins and retain the biological  
activity for a long period of time, thus  
have improved bioavailability of  
the bioactive proteins and peptides. The  
protein-polymer or  
peptide-polymer conjugates minimize the  
number of administrations and are  
capable of decreasing the side effects in  
accordance with over drug abuse.

Dwg.0/5

L7 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN

ACCESSION NUMBER: 2002:171721 CAPLUS  
DOCUMENT NUMBER: 136:205468  
TITLE: \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\* solution compositions  
stabilized over long  
time  
INVENTOR(S): Sato, Yasushi  
PATENT ASSIGNEE(S): Chugai Seiyaku  
Kabushiki Kaisha, Japan  
SOURCE: PCT Int. Appl., 23  
pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.                         | KIND     | DATE     |
|------------------------------------|----------|----------|
| -----                              |          |          |
| WO 2002017957                      | A1       | 20020307 |
| 2001-JP7600                        | 20010903 | WO       |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, |          |          |
| BB, BG, BR, BY, BZ, CA, CH, CN,    |          |          |
| CO, CR, CU, CZ, DE, DK, DM, DZ,    |          |          |
| EC, EE, ES, FI, GB, GD, GE, GH,    |          |          |

GM, HR, HU, ID, IL, IN, IS, JP,  
 KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK,  
 MN, MW, MX, MZ, NO, NZ, PH, PL,  
 PT, RO, RU, SD, SE, SG, SI, SK,  
 SL, TJ, TM, TR, TT, TZ, UA, UG,  
 US, UZ, VN, YU, ZA, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL,  
 SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE,  
 IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ,  
 GW, ML, MR, NE, SN, TD, TG  
 AU 2001082607 A5 20020313 AU  
 2001-82607 20010903  
 EP 1329224 A1 20030723 EP  
 2001-961312 20010903  
 R: AT, BE, CH, DE, DK, ES, FR, GB,  
 GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY,  
 AL, TR  
 US 2004037803 A1 20040226 US  
 2003-362921 20030227  
 PRIORITY APPLN. INFO.: JP  
 2000-266095 A 20000901

2001-JP7600 W 20010903  
 AB Disclosed are \*\*\*G\*\*\* - \*\*\*CSF\*\*\*  
 soln. compns. which are  
 substantially free from any protein as a  
 stabilizer and contain at least  
 one amino acid or its salt as a  
 stabilizer. A soln. 1 mL (pH = 6.5)  
 contg. \*\*\*G\*\*\* - \*\*\*CSF\*\*\* 25  
 .mu.g/mL, histidine hydrochloride 0.4,  
 methionine 0.1, polysorbate-20 0.01 %,  
 and 100 mM NaCl was formulated and  
 filled in a glass vial for testing its  
 stability during storage.  
 REFERENCE COUNT: 25 THERE ARE 25  
 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL  
 CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 30 WPIDS COPYRIGHT 2004  
 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2002-075094 [10] WPIDS  
 DOC. NO. CPI: C2002-022327  
 TITLE: Protein conjugates that  
 selectively target certain  
 tissues and organs  
 useful for treating and preventing  
 various diseases,  
 comprises glucose-aminoglycan-targeting  
 domain conjugated to a  
 therapeutic protein.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): SEREDA, T J; WIEBE, D J;  
 WILLIAMS, A M; WOLOSKI, B M R  
 PATENT ASSIGNEE(S): (CANG-N) CANGENE CORP;  
 (SERE-I) SEREDA T J; (WIEB-I)  
 WIEBE D J; (WILL-I)  
 WILLIAMS A M; (WOLO-I) WOLOSKI B M R  
 COUNTRY COUNT: 96  
 PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK |
|-----------|------|------|------|
| LA PG     |      |      |      |
| -----     |      |      |      |
| -----     |      |      |      |

WO 2001080899 A2 20011101 (200210)\* EN  
 121  
 RW: AT BE CH CY DE DK EA ES FI FR GB  
 GH GM GR IE IT KE LS LU MC MW MZ  
 NL OA PT SD SE SL SZ TR TZ UG ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR  
 BY BZ CA CH CN CO CR CU CZ DE DK  
 DM DZ EE ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KP KR KZ  
 LC LK LR LS LT LU LV MA MD MG MK  
 MN MW MX MZ NO NZ PL PT RO RU SD  
 SE SG SI SK SL TJ TM TR TT TZ UA  
 UG US UZ VN YU ZA ZW  
 AU 2001050212 A 20011107 (200219)  
 EP 1274461 A2 20030115 (200306) EN  
 R: AL AT BE CH CY DE DK ES FI FR GB  
 GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI TR  
 US 2004037834 A1 20040226 (200416)

# APPLICATION DETAILS:

| PATENT NO     | KIND | DATE     |
|---------------|------|----------|
| WO 2001080899 | A2   | 20010420 |
| 2001-CA533    | A    | 20010420 |
| 2001-50212    | A2   | 20010420 |
| EP 1274461    | A2   | 20010420 |
| 2001-923439   | A1   | 20010420 |
| 2001-CA533    | A1   | 20010420 |
| US 2004037834 | A1   | 20010420 |
| 2001-CA533    | A1   | 20010420 |
| 2003-257377   | A1   | 20030610 |

# FILING DETAILS:

| PATENT NO     | KIND | DATE     |
|---------------|------|----------|
| AU 2001050212 | A    | Based on |
| 2001080899    | A2   | Based on |
| EP 1274461    | A2   | Based on |
| 2001080899    | A2   | Based on |

PRIORITY APPLN. INFO: US 2000-198613P  
 20000420; US

2003-257377  
 20030610  
 AN 2002-075094 [10] WPIDS  
 AB WO 200180899 A UPAB: 20020213  
 NOVELTY - A conjugate (I) comprising an  
 hyaluronic acid (HA)-binding  
 protein (HABP1) or peptide (HABP2)  
 contiguous with, or coupled to a  
 polypeptide conjugated to a therapeutic  
 agent, is new.

DETAILED DESCRIPTION - INDEPENDENT  
 CLAIMS are also included for the  
 following:

(1) an isolated and purified nucleic  
 acid sequence (II) encoding an  
 HABP1 or peptide in sequence with a  
 therapeutic agent;  
 (2) preparation (M1) of (I) by  
 inserting a first nucleotide sequence

encoding a HABP1 directly linked to a second nucleotide sequence encoding a therapeutic protein into a suitable vector, expressing the vector in an acceptable host, purifying conjugate molecule from host or expression medium;

(3) preparing a pharmaceutical for treating an animal in need of treatment, comprising the preparation of (I) and suspending (I) in a carrier, diluent or excipient;

(4) pharmaceutical composition (III) comprising (I).

ACTIVITY - Immunosuppressive; cytostatic.

MECHANISM OF ACTION - Gene therapy. USE - (I) is useful for altering in vivo the distribution of a

therapeutic agent comprising administering (I) to the animal where conjugate molecule will distribute primarily in tissues and organs containing high levels of endogenous HA; and for treating mammal with a disorder where a diseased tissue of the mammal contains high level of HA (claimed).

ADVANTAGE - Lower therapeutic dosages required also translates into lower immunogenicity of the conjugated protein as compared to the native protein. As a result, conjugates improves patient compliance and reduce direct and indirect costs associated with the drug substance and its administration. Conjugates allows for the use, where appropriate, of lower, safer, dosages as compared to the conventional dosage requirements for the unconjugated corresponding therapeutic agent. Conjugate molecules has an increased half-life and potency, resulting in prolonged circulation of the molecule, efficient distribution into the target tissues, and increased bioavailability. Dwg.0/0

L7 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:747645 CAPLUS

DOCUMENT NUMBER: 135:293985

TITLE: Powdery preparation for transmucosal administration

containing a polymeric form of drug and exhibiting improved storage

stability

INVENTOR(S): Nomura, Hideaki; Ueki, Yosuke

PATENT ASSIGNEE(S): Kirin Beer Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 28

PP.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE  
APPLICATION NO. DATE

WO 2001074397 A1 20011011 WO  
2001-JP2555 20010328

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001044584 A5 20011015 AU  
2001-44584 20010328

EP 1273306 A1 20030108 EP  
2001-917538 20010328

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY,

AL, TR

PRIORITY APPLN. INFO.: JP  
2000-99213 A 20000331

WO

2001-JP2555 W 20010328  
AB Disclosed is a powdery prepn. for transmucosal administration contg. a polymeric form of drug, a cationic polymer, and, if necessary, a thickener polymer, characterized by further contg. an effective amt. of a basic amino acid. This powdery prepn. is improved in the storage stability of the polymeric form of drug while keeping the improved transmucosal absorbability of the polymeric form of drug. A soln. was formulated contg. \*\*\*G\*\*\* - \*\*\*CSF\*\*\* 10,

Eudragit E100 5, L-histidine 2, D-mannitol 78.8 %, and buffering agents q.s. (to pH 4) and the soln. was spray-dried to give powders for nasal administration.

REFERENCE COUNT: 8 THERE ARE 8  
CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL  
CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:861500 CAPLUS

DOCUMENT NUMBER: 136:602

TITLE: Hemopoietic growth factor antagonists useful in

treatment of cancer and inflammation

INVENTOR(S): Vadas, Mathew Alexander; Lopez, Angel Francisco;

Shannon, Mary Francis; Cheah, Keat-chye; Senn, Carol

Robins, Allan  
 PATENT ASSIGNEE(S): Breasagen Limited,  
 Australia  
 SOURCE: U.S., 25 pp., Cont.-  
 in-part of U.S. 5,939,063.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| US 6322791             | B1   | 20011127 | 1998-983523     | 19980528   |
| US 5939063             | A    | 19990817 | 1996-591438     | 19960408   |
| AU 9934974             | A1   | 19990909 | 1999-34974      | 19990611   |
| PRIORITY APPLN. INFO.: |      |          | 1995-3780       | A 19950623 |
| 1996-591438            | A2   | 19960408 |                 |            |
| 1996-AU3820            | W    | 19960621 |                 |            |
| 1993-186               | A    | 19930728 |                 |            |
| 1994-4772              | A    | 19940330 |                 |            |
| 1994-AU432             | W    | 19940728 |                 |            |
| 1996-61153             | A3   | 19960621 |                 |            |

AB The present invention relates generally to variant recombinant forms of hemopoietic growth factors useful as antagonists to the corresponding native hemopoietic growth factor and their use in ameliorating aberrant effects caused by the native mols. and in the treatment of tumors and cancers and inflammation. A method for inducing apoptosis of a cell that comprises the .alpha.-chain of the granulocyte macrophage colony stimulating factor (GM-CSF) receptor is described. The method comprises the step of contacting the cells with an effective amt. of a modified GM-CSF polypeptide, which binds to the .alpha.-chain of the GM-CSF receptor, for a time and under conditions sufficient to induce apoptosis. The modified GM-CSF polypeptide comprises a mutation of the glutamate at position 21 of the amino acid sequence of wild-type native GM-CSF to an amino acid selected from the group consisting of \*\*\*arginine\*\*\*, \*\*\*lysine\*\*\*, glutamine and asparagine. The cells in which apoptosis is induced are normal or malignant myeloid cells, such as myeloid leukemia cells. A method for selecting bone marrow cells lacking the .alpha.-chain of the GM-CSF receptor comprises (i) contacting said bone marrow cells

with an effective amt. of a modified GM-CSF polypeptide for a time and under conditions sufficient to induce apoptosis of cells expressing the .alpha.-chain of the GM-CSF receptor, and (ii) selecting cells that do not undergo apoptosis, i.e., cells lacking the .alpha.-chain of the GM-CSF receptor.

REFERENCE COUNT: 12 THERE ARE 12  
 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL  
 CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 13 OF 30 WPIDS COPYRIGHT 2004  
 THOMSON DERWENT on STN DUPLICATE 3  
 ACCESSION NUMBER: 2000-647203 [62] WPIDS  
 DOC. NO. CPI: C2000-195762  
 TITLE: Novel composition  
 comprising at least 1 megakaryocyte and  
 at least 1 compound that  
 donates, transfers or releases  
 nitric oxide, useful for  
 the treatment of blood disorders  
 such as  
 thrombocytopenia, thrombocythemia or  
 thrombocytopathy.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): BATTINELLI, E M;  
 LOSCALZO, J  
 PATENT ASSIGNEE(S): (UYBO-N) UNIV BOSTON  
 COUNTRY COUNT: 92  
 PATENT INFORMATION:

| PATENT NO                            | KIND | DATE     | WEEK         |
|--------------------------------------|------|----------|--------------|
| LA PG                                |      |          |              |
| WO 2000057891                        | A1   | 20001005 | (200062)* EN |
| 50                                   |      |          |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB |      |          |              |
| GH GM GR IE IT KE LS LU MC MW NL     |      |          |              |
| OA PT SD SE SL SZ TZ UG ZW           |      |          |              |
| W: AE AG AL AM AT AU AZ BA BB BG BR  |      |          |              |
| BY CA CH CN CR CU CZ DE DK DM DZ     |      |          |              |
| EE ES FI GB GD GE GH GM HR HU ID     |      |          |              |
| IL IN IS JP KE KG KP KR KZ LC LK     |      |          |              |
| LR LS LT LU LV MA MD MG MK MN MW     |      |          |              |
| MX NO NZ PL PT RO RU SD SE SG SI     |      |          |              |
| SK SL TJ TM TR TT TZ UA UG US UZ     |      |          |              |
| VN YU ZA ZW                          |      |          |              |
| AU 2000038778                        | A    | 20001016 | (200106)     |
| US 6589759                           | B1   | 20030708 | (200353)     |

#### APPLICATION DETAILS:

| PATENT NO     | KIND           | APPLICATION | DATE |
|---------------|----------------|-------------|------|
| WO 2000057891 | A1             |             | WO   |
| 2000-US6436   | 20000330       |             |      |
| AU 2000038778 | A              |             | AU   |
| 2000-38778    | 20000330       |             |      |
| US 6589759    | B1 Provisional |             | US   |
| 1999-126854P  | 19990330       |             |      |
| 2000-US6436   | 20000330       |             | WO   |
| 2001-937336   | 20011205       |             | US   |

FILING DETAILS:

| PATENT NO     | KIND |          |    |
|---------------|------|----------|----|
| AU 2000038778 | A    | Based on | WO |
| 2000057891    |      |          |    |
| US 6589759    | B1   | Based on | WO |
| 2000057891    |      |          |    |

PRIORITY APPLN. INFO: US 1999-126854P  
19990330; US

2001-937336  
20011205  
AN 2000-647203 [62] WPIDS  
AB WO 200057891 A UPAB: 20001130  
NOVELTY - Composition comprising at least  
1 megakaryocyte (I) and at least  
1 compound (II) or its salt that donates,  
transfers or releases nitric  
oxide, or induces the production of  
endogenous nitric oxide or  
endothelium-derived relaxing factor or is  
a substrate for nitric oxide  
synthase, is new.

DETAILED DESCRIPTION - INDEPENDENT  
CLAIMS are provided for:  
(1) a method of producing platelets  
or proplatelets in vitro  
comprising adding the composition to at  
least 1 megakaryocyte in culture;  
(2) a method of producing platelets  
or proplatelets in vivo in a  
patient comprising administration of the  
composition to the patient;  
(3) a method of treating or  
preventing a blood platelet disorder in a  
patient comprising administration of the  
composition to the patient;

(4) a method of decreasing platelet  
counts in a patient comprising  
administration of at least one compound  
that inhibits production of nitric  
oxide synthase; and

(5) a method of treating or  
preventing a blood platelet disorder in a  
patient, comprising:

(a) providing at least one  
megakaryocyte in culture;  
(b) adding at least one compound  
(II) to (a) to produce platelets  
and/or proplatelets; and  
(c) administering the platelets  
and/or proplatelets to the patient.

ACTIVITY - Hemostatic.  
No biological data is given.  
MECHANISM OF ACTION - Nitric oxide  
synthase production inhibition.

USE - The composition is used to  
treat blood disorders such as  
thrombocytopenia, thrombocythemia or  
thrombocytopenia (claimed)

Dwg.0/2

L7 ANSWER 14 OF 30 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN  
ACCESSION NUMBER: 2000-430219 [37] WPIDS  
DOC. NO. CPI: C2000-130691  
TITLE: Multivesicular liposomes  
having non-concentric chambers

with membranes  
distributed in matrix useful for  
controlled release of  
active agents.  
DERWENT CLASS: B05 B07 C03 C07  
INVENTOR(S): HOWELL, S B; KIM, S  
PATENT ASSIGNEE(S): (SKYE-N) SKYEPHARMA INC  
COUNTRY COUNT: 1  
PATENT INFORMATION:

| LA | PATENT NO  | KIND | DATE     | WEEK      |
|----|------------|------|----------|-----------|
| PG |            |      |          |           |
| 12 | US 6071534 | A    | 20000606 | (200037)* |

APPLICATION DETAILS:

| PATENT NO   | KIND     |         |    |
|-------------|----------|---------|----|
| APPLICATION | DATE     |         |    |
| US 6071534  | A        | CIP of  | US |
| 1988-151553 | 19880218 | CIP of  | US |
| 1990-563365 | 19900806 | Cont of | US |
| 1991-709744 | 19910603 | Cont of | US |
| 1993-20483  | 19930223 | CIP of  | US |
| 1994-352342 | 19941207 | Div ex  | US |
| 1995-473019 | 19950606 |         | US |
| 1998-19337  | 19980205 |         |    |

FILING DETAILS:

| PATENT NO  | KIND |        |    |
|------------|------|--------|----|
| PATENT NO  |      |        |    |
| US 6071534 | A    | Div ex | US |
| 5807572    |      |        |    |

PRIORITY APPLN. INFO: US 1995-473019  
19950606; US

|             |  |
|-------------|--|
| 1988-151553 |  |
| 1990-563365 |  |
| 1991-709744 |  |
| 1993-20483  |  |
| 1994-352342 |  |
| 1998-19337  |  |

19980205  
AN 2000-430219 [37] WPIDS  
AB US 6071534 A UPAB: 20000807  
NOVELTY - Multivesicular liposome having  
non-concentric chambers with  
membranes distributed in a matrix is  
produced by dispersing a water in oil  
emulsion comprising a lipid component,  
aqueous component and a  
hydrochloride into a second aqueous  
component.

DETAILED DESCRIPTION -  
Multivesicular liposome having non-concentric chambers with membranes distributed in a matrix is produced by:

(1) forming a water-in-oil emulsion from a lipid component comprising an organic solvent, an amphipathic lipid and a neutral lipid lacking a hydrophilic head group and an aqueous component and which contains 10-500 mM hydrochloric acid, \*\*\*arginine\*\*\* hydrochloride, histidine hydrochloride, \*\*\*lysine\*\*\* hydrochloride and/or pyridine hydrochloride, and at least one biologically active substance;

(2) dispersing the water-in-oil emulsion into a second aqueous component to form solvent spherules and

(3) removing the organic solvent from the spherules to form the liposomes suspended in the second aqueous component.

The concentration of hydrohalide is selected to modulate the in vivo release rate of the biologically active substance.

USE - Useful for the controlled release of active agents encapsulated in the presence of a hydrochloride. The liposome is used to give prolonged and sustained in vivo exposure at a disease site of a therapeutic concentration of the active substance

ADVANTAGE - The liposomes provide high encapsulation efficiency, controlled release rate, well defined, reproducible size distribution and adjustable internal chamber size and number.

Dwg.0/1

L7 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 2000:628014 CAPLUS  
DOCUMENT NUMBER: 133:213193  
TITLE: Stabilized  
formulations of proteins  
INVENTOR(S): Sato, Yasushi  
PATENT ASSIGNEE(S): Chugai Seiyaku  
Kabushiki Kaisha, Japan  
SOURCE: PCT Int. Appl., 32  
PP.

CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.      | KIND  | DATE     |    |
|-----------------|---|----------|----|
| APPLICATION NO. | DATE  |          |    |
| WO 2000051629   | A1  | 20000908 | WO |
| 2000-JP1160     | 20000229  |          |    |
| W:              | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, |          |    |

MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
JP 2000247903 A2 20000912 JP  
1999-52314 19990301  
EP 1197221 A1 20020417 EP  
2000-905397 20000229  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO  
PRIORITY APPLN. INFO.: JP  
1999-52314 A 19990301  
WO

2000-JP1160 W 20000229  
AB Disclosed are stable \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\* preps. showing a residual  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* ratio of 90 %  
or more after a long-term storage  
test at 25.degree. for 3 mo; showing a  
residual \*\*\*G\*\*\* - \*\*\*CSF\*\*\*  
ratio of 90 % or more after a long-term  
storage test at 40.degree. for 2  
mo; showing a residual \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\* ratio of 90 % or more  
after an accelerated test at 50.degree.  
for 1 mo; or showing a residual  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* ratio of 90 %  
or more after an accelerated test at  
60.degree. for 2 wk; and showing a ratio  
of the formation of the  
methionine residue-oxidized deriv. of  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* of 1 % or  
less after an accelerated test at  
50.degree. for 1 mo or after an  
accelerated test at 60.degree. for 2 wk.  
A method for inhibiting the  
formation of the methionine residue-  
oxidized deriv. of a physiol. active  
protein having methionine residues, is  
characterized by adding methionine  
to a compn. contg. this protein.  
REFERENCE COUNT: 21 THERE ARE 21  
CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL  
CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 2000:573832 CAPLUS  
DOCUMENT NUMBER: 133:176185  
TITLE: Ligand-binding domain  
of common .beta.c chain of  
interleukin-3,  
interleukin-5, and GM-CSF receptors  
INVENTOR(S): Bagley, Christopher  
James; Rossjohn, Jamie; Mckinstry,  
William John;  
Woodcock, Joanna May; Parker, Michael  
William; Lopez, Angel  
Francisco  
PATENT ASSIGNEE(S): Medvet Science Pty  
Ltd, Australia; St Vincents

Research Institute of Medical  
SOURCE: PCT Int. Appl., 47  
PP.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO. KIND DATE  
APPLICATION NO. DATE  
-----  
WO 2000047620 A1 20000817 WO  
2000-AU79 20000208  
W: AE, AL, AM, AT, AU, AZ, BA, BB,  
BG, BR, BY, CA, CH, CN, CR, CU,  
CZ, DE, DK, DM, EE, ES, FI, GB,  
GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ,  
LC, LK, LR, LS, LT, LU, LV, MA,  
MD, MG, MK, MN, MW, MX, NO, NZ,  
PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TR, TT, TZ, UA,  
UG, US, UZ, VN, YU, ZA, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SL, SZ,  
TZ, UG, ZW, AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT,  
LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR,  
NE, SN, TD, TG  
EP 1161453 A1 20011212 EP  
2000-904705 20000208  
R: AT, BE, CH, DE, DK, ES, FR, GB,  
GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO  
JP 2002541061 T2 20021203 JP  
2000-598535 20000208  
NZ 513507 A 20030829 NZ  
2000-513507 20000208  
ZA 2001006536 A 20020808 ZA  
2001-6536 20010808  
US 2003044975 A1 20030306 US  
2001-913419 20010808  
PRIORITY APPLN. INFO.: AU  
1999-8576 A 19990208  
1999-8577 A 19990209  
1999-264 A 19990511  
WO

2000-AU79 W 20000208  
AB The authors present a structural and  
functional characterization of a  
portion of the B'-C' loop of domain 4 of  
the cytokine receptor common  
.beta.c chain. In one aspect of the  
invention, the characterization  
provides for identifying compds. having  
cytokine agonist or antagonist  
activity.  
REFERENCE COUNT: 3 THERE ARE 3  
CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL  
CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 17 OF 30 BIOSIS COPYRIGHT 2004  
BIOLOGICAL ABSTRACTS INC. on STN  
ACCESSION NUMBER: 2001:311668 BIOSIS

DOCUMENT NUMBER: PREV200100311668  
TITLE: Cytokine regulation of  
inducible nitric oxide synthase  
(NOS2) and NOS2 inhibitor-  
induced apoptosis and death in  
chronic lymphocytic  
leukemia cells.  
AUTHOR(S): Levesque, Marc C. [Reprint  
author]; Misukonis, Mary A.  
[Reprint author];  
O'Loughlin, Charles W.; Wilson, D. Lee;  
Adams, David J.; Silber,  
Robert; Weinberg, J. Brice  
[Reprint author]  
CORPORATE SOURCE: Department of Medicine, VA  
and Duke University Medical  
Centers, Durham, NC, USA  
SOURCE: Blood, (November 16, 2000)  
Vol. 96, No. 11 Part 1, pp.  
159a. print.  
Meeting Info.: 42nd Annual  
Meeting of the American Society  
of Hematology. San  
Francisco, California, USA. December  
01-05, 2000. American  
Society of Hematology.  
CODEN: BLOOAW. ISSN: 0006-  
4971.  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract;  
(Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 27 Jun 2001  
Last Updated on STN: 19  
Feb 2002

AB Chronic lymphocytic leukemia (B-CLL) is a  
malignancy of a mantle  
zone-based subpopulation of anergic,  
self-reactive, activated CD5+ B  
lymphocytes devoted to the production of  
polyreactive natural  
autoantibodies. B-CLL is characterized  
by the accumulation of long-lived  
non-dividing CD5+B cells in Go of the  
cell cycle. Nitric oxide (NO) is an  
important regulator of apoptosis, and the  
viability of cultured B-CLL  
cells is dependent on the autocrine  
production of NO by NOS2. Inhibition  
of NOS2 induces B-CLL cell apoptosis.  
The purpose of this study to  
determine whether cytokine factors that  
prevent spontaneous in vitro  
apoptosis of B-CLL cells induce B-cell  
NOS2 enzyme activity and NO  
production and prevent NOS2 inhibitor-  
induced B-CLL cell apoptosis. Cells  
were from patients with CD5+ B-CLL with  
WBC>20,000/uL; all had not  
received leukemia therapy within the last  
4 weeks. Peripheral blood  
mononuclear cells (PBMC) were isolated  
from blood using ficoll-Hypaque,  
and T cells and monocytes were depleted  
using magnetic beads coupled with  
anti-CD2 and anti-CD14 antibodies. The  
resultant cells were 90+-2%  
CD5+/CD19+ and 3+-2% CD5-/CD19+ (N=45).  
We found that B-CLL cells  
expressed NOS2 as determined by an enzyme  
assay (8 fold greater expression

in B-CLL cells than in normal PBMC), by immunoblot (0/12 positive for NOS2 in normal PBMC vs 12/15 positive in CLL), and by RT-PCR analysis (0/10 positive for NOS2 in normal PBMC vs 13/13 positive in B-CLL cells). IL-4 and IFNgamma significantly increased B-CLL cell NOS2 enzyme activity and protein expression during in vitro culture. However, IFNalpha, nerve growth factor, IL-6, IL-2, IL-8, and \*\*\*G\*\*\* - \*\*\*CSF\*\*\* had no significant effects. We were unable to detect increased concentrations of nitrite or nitrate (surrogate markers of NO production) in B-CLL cell cultures treated with IL-4 or IFNgamma. IL-4 and IFNgamma significantly inhibited NOS2 B-CLL cell death and apoptosis induced by the NOS2-specific inhibitor L-N6-(1-iminoethyl)-\*\*\*lysine\*\*\* (L-NIL) or the nonspecific NOS inhibitor NG-monomethyl-L-\*\*\*arginine\*\*\* (NMMA). In summary, we found that B-CLL cells expressed NOS2, that IL-4 and IFNgamma increased B-CLL NOS2 expression, and that IL-4 and IFNgamma prevented NOS2 inhibitor-induced B-CLL cell death and apoptosis. Expression of NOS2 by B-CLL cells may promote their survival. NOS2 and NO may represent new molecular targets in the treatment of B-CLL.

L7 ANSWER 18 OF 30 MEDLINE on STN  
DUPLICATE 4  
ACCESSION NUMBER: 1999248663 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10231881  
TITLE: Formulation of proteins in vacuum-dried glasses. II.  
Process and storage stability in sugar-free amino acid systems.  
AUTHOR: Mattern M; Winter G; Kohnert U; Lee G  
CORPORATE SOURCE: Department of Pharmaceutical Technology, Friedrich-Alexander University, Erlangen, Germany.  
SOURCE: Pharmaceutical development and technology, (1999 May) 4 (2) 199-208.  
Journal code: 9610932.

ISSN: 1083-7450.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199906  
ENTRY DATE: Entered STN: 19990628  
Last Updated on STN:  
19990628

Entered Medline: 19990617  
AB The purpose of this research was to investigate the freeze- and vacuum-drying behavior of L-amino acids of current/potential use as adjuvants for formulating proteins. The analytical methods used were

wide-angle x-ray diffraction, differential scanning calorimetry, and scanning electron microscopy. Protein analysis was performed either as an activity assay (lactate dehydrogenase [LDH]) or by size-exclusion chromatography (\*\*\*granulocyte\*\*\* \*\*\*colony\*\*\* - \*\*\*stimulating\*\*\* \*\*\*factor\*\*\* [rhG-CSF]). After samples were freeze-dried, only the four basic amino acids (\*\*\*arginine\*\*\*, \*\*\*lysine\*\*\*, histidine, and citrulline) formed amorphous solids, which, however, were partially crystalline. The remaining amino acids all formed fully crystalline solids. After samples were vacuum-dried, (20 degrees C, 0.1 mbar, 1 ml fill volume in 2-ml vials) fully crystalline solids were formed by all of the amino acids. For \*\*\*arginine\*\*\*, the addition of either HCl, H3PO4, or H2SO4 sufficient to form the respective salt produced amorphous solids after vacuum-drying, but they had high residual water contents and low glass transition temperatures (Tg). Addition of phenylalanine to \*\*\*arginine\*\*\* base inhibited crystallization of the latter at low concentrations during vacuum-drying procedure, leading to formation of a pure rubbery solid. At higher concentrations the phenylalanine crystallized, producing dry products with glass transition temperatures of > 60 degrees C. The process and storage stability of LDH and rhG-CSF in the vacuum-dried phenylalanine/\*\*\*arginine\*\*\* glasses was greatly improved at temperatures up to 40 degrees C compared with the unprotected proteins. Uptake of moisture during storage was, however, a complicating factor, reducing Tg, promoting crystallization, and leading to decreased protein stability. The PO4 salt of \*\*\*arginine\*\*\* produced especially high glass transition temperatures after it was vacuum-dried. These sugar-free amino acid formulations thus are potential stabilizers for proteins.

L7 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1998:604601 CAPLUS  
DOCUMENT NUMBER: 129:235651  
TITLE: Multivesicular liposomes having a biologically active substance encapsulated therein in the presence of a hydrochloride  
INVENTOR(S): Kim, Sinil; Howell, Stephen B.  
PATENT ASSIGNEE(S): Depotech Corporation, USA  
SOURCE: U.S., 12 pp., Cont.-in-part of U.S. Ser. No. 352,342, abandoned.  
CODEN: USXXAM



DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

| PATENT NO.             | KIND     | DATE     |    |
|------------------------|----------|----------|----|
| APPLICATION NO.        | DATE     |          |    |
| US 5807572             | A        | 19980915 | US |
| 1995-473019            | 19950606 |          |    |
| US 6071534             | A        | 20000606 | US |
| 1998-19337             | 19980205 |          |    |
| PRIORITY APPLN. INFO.: |          |          | US |
| 1988-151553            | B2       | 19880218 |    |

|             |    |          |    |
|-------------|----|----------|----|
| 1990-563365 | B2 | 19900806 | US |
| 1991-709744 | B1 | 19910603 | US |
| 1993-20483  | B1 | 19930223 | US |
| 1994-352342 | B2 | 19941207 | US |
| 1995-473019 | A3 | 19950606 |    |

AB Disclosed are multivesicular liposomes contg. biol. active substances, the multivesicular liposomes having defined size distribution, adjustable av. size, adjustable internal chamber size and no., and a modulated rate of the biol. active substance in contrast to the previous art. The process comprises dissolving a lipid component in volatile org. solvents, adding an immiscible aq. component contg. at least one biol. active substance to be encapsulated, and adding to either or both the org. solvents and the lipid component, a hydrochloride effective to control the release rate of the biol. active substance from the multivesicular liposome, making a water-in-oil emulsion from the two components, immersing the emulsion into a second aq. component, dividing the emulsion into small solvent spherules which contain even smaller aq. chambers, and then removing the solvents to give an aq. suspension of multivesicular liposomes encapsulating biol. active substances. Multivesicular liposomes with encapsulation of 59% cytarabine (I) contg. hydrochloric acid (II) were prepd. Percentage of retained I at 24 h was 93% in contrast to 52% when II was not used.

REFERENCE COUNT: 62 THERE ARE 62  
CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL  
CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1998:175302 CAPLUS  
DOCUMENT NUMBER: 128:208941  
TITLE: Multivesicular  
liposomes having a biologically active  
substance  
encapsulated in it in the presence of a  
hydrochloride

INVENTOR(S): Kim, Sinil; Howell,  
Stephen B.  
PATENT ASSIGNEE(S): DepoTech Corp., USA  
SOURCE: U.S., 11 pp., Cont.-  
in-part of U.S. Ser. No. 352,342,  
abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

| PATENT NO.             | KIND     | DATE     |    |
|------------------------|----------|----------|----|
| APPLICATION NO.        | DATE     |          |    |
| US 5723147             | A        | 19980303 | US |
| 1995-472126            | 19950606 |          |    |
| PRIORITY APPLN. INFO.: |          |          | GB |
| 1987-4171              | A        | 19870223 |    |

|             |    |          |    |
|-------------|----|----------|----|
| 1988-151553 | B2 | 19880218 | US |
| 1990-563365 | B2 | 19900806 | US |
| 1991-709744 | B1 | 19910603 | US |
| 1993-20483  | B1 | 19930223 | US |
| 1994-352342 | B2 | 19941207 |    |

AB Disclosed are multivesicular liposomes contg. biol. active substances, the multivesicular liposomes having defined size distribution, adjustable av. size, adjustable internal chamber size and no., and a modulated rate of the biol. active substance in contrast to the previous art. The process comprises dissolving a lipid component in volatile org. solvents, adding an immiscible aq. component contg. at least one biol. active substance to be encapsulated, and adding to either or both the org. solvents and the lipid component, a hydrochloride effective to control the release rate of the biol. active substance from the multivesicular liposome, making a water-in-oil emulsion from the two components, immersing the emulsion into a second aq. component, dividing the emulsion into small solvent spherules which contain even smaller aq. chambers, and then removing the solvents to give an aq. suspension of multivesicular liposomes encapsulating biol. active substances. Thus, 1 mL of a chloroform soln. contg. 9.3 mmoles of dioleoyl phosphatidylcholine, 2.1 mmoles of dipalmitoyl phosphatidylglycerol, 15 mmoles of cholesterol, and 1.8 mmoles of triolein was added to one ml of an aq. soln. contg. 20 mg/mL of cytarabine and 136 mM of hydrochloric acid. The emulsion thus obtained was mixed with a soln. contg. 4% glucose and 40 mM \*\*\*lysine\*\*\* and stirred, the chloroform was then evapd. to obtain multivesicular liposomes which were

sepd. by centrifugation. The retained  
cytarabine in the liposomes at 24 h  
was 93% when hydrochloric acid was  
present, in contrast to 52% when  
hydrochloric acid was not present.

REFERENCE COUNT: 57 THERE ARE 57  
CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL  
CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1998:250643 CAPLUS  
DOCUMENT NUMBER: 128:248565  
TITLE: Bioactive and/or  
targeted dendrimer conjugates  
INVENTOR(S): Tomalia, Donald A.;  
Baker, James R.; Cheng, Roberta  
C.; Bielinska, Anna  
U.; Fazio, Michael J.; Hedstrand,  
David M.; Johnson,  
Jennifer A.; Kaplan, Donald A.;  
Klakamp, Scott L.; et  
al.

PATENT ASSIGNEE(S): Dow Chemical Co.,  
USA; Dendritech Inc.; University of  
Michigan  
SOURCE: U.S., 139 pp., Cont.  
-in-part of U. S. Ser. No.

316,536, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 9  
PATENT INFORMATION:

| PATENT NO.  | KIND     | DATE        | APPLICATION NO. | DATE     |
|-------------|----------|-------------|-----------------|----------|
| US 5714166  | A        | 19980203    | 1995-400203     | 19950307 |
| BR 8707431  | A        | 19881101    | 1987-7431       | 19870419 |
| AT 89743    | E        | 19930615    | 1987-307266     | 19870817 |
| JP 63501878 | T2       | 19880728    | 1987-505282     | 19870818 |
| JP 07002840 | B4       | 19950118    | JP 63502350     | T2       |
| 1987-505084 | 19870818 | JP 07057735 | B4              | 19950621 |
| BR 8707433  | A        | 19881101    | 1987-7433       | 19870818 |
| FI 8801768  | A        | 19880415    | 1988-1768       | 19880415 |
| US 5338532  | A        | 19940816    | 1991-654851     | 19910213 |
| US 5527524  | A        | 19960618    | 1993-43198      | 19930405 |
| CA 2161684  | AA       | 19950914    | 1995-2161684    | 19950307 |
| ZA 9501877  | A        | 19960909    | 1995-1877       | 19950307 |
| RU 2127125  | C1       | 19990310    | 1995-122714     | 19950307 |
| IL 128773   | A1       | 20010520    | 1995-128773     | 19950307 |
| IL 128774   | A1       | 20010520    | 1995-128774     | 19950307 |

|               |    |          |             |          |
|---------------|----|----------|-------------|----------|
| IL 128775     | A1 | 20010520 | 1995-128775 | 19950307 |
| IL 112920     | A1 | 20030410 | 1995-112920 | 19950307 |
| FI 9801807    | A  | 19980824 | 1998-1807   | 19980824 |
| AU 768662     | B2 | 20031218 | 2002-29312  | 20020328 |
| AU 2002029312 | A5 | 20020523 | 1986-897455 | B2       |
| 1987-87266    | B2 | 19870818 | 1989-386049 | B2       |
| 1991-654851   | A2 | 19910213 | 1993-43198  | A2       |
| 1993-43198    | A2 | 19930405 | 1993-43198  | A2       |
| 1994-207494   | B2 | 19940307 | 1994-316536 | B2       |
| 1987-307266   | A  | 19870817 | 1987-US2075 | W        |
| 1987-US2076   | A  | 19870818 | 1995-112920 | A3       |
| 1999-64440    | A3 | 19991210 |             |          |

AB Dendritic polymer conjugates which are  
composed of at least one dendrimer  
in assocn. with at least one unit of a  
carried material, where the carrier  
material can be a biol. response  
modifier, have been prepd. The conjugate  
can also have a target director present,  
and when it is present then the  
carried material may be a bioactive  
agent. Preferred dendritic polymers  
are dense star polymers, which have been  
complexed with biol. response  
modifiers. These conjugates and  
complexes have particularly advantageous  
properties due to their unique  
characteristics.

REFERENCE COUNT: 135 THERE ARE 135  
CITED REFERENCES AVAILABLE FOR

THIS RECORD.  
ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L7 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1997:625591 CAPLUS  
DOCUMENT NUMBER: 127:290229  
TITLE: Hematopoietic cell  
culture nutrient supplement  
INVENTOR(S): Daley, John P.;  
Dadey, Barbara M.; Biddle, William;  
Wysocki, Michelle G.  
PATENT ASSIGNEE(S): Life Technologies,  
Inc., USA  
SOURCE: PCT Int. Appl., 73  
pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND     | DATE     |    |
|---|----------|----------|----|
| APPLICATION NO.   | DATE     |          |    |
| WO 9733978  | A1       | 19970918 | WO |
| 1997-US1867   | 19970131 |          |    |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |          |    |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |          |          |    |
| CA 2248142  | AA       | 19970918 | CA |
| 1997-2248142  | 19970131 |          |    |
| AU 9722600  | A1       | 19971001 | AU |
| 1997-22600  | 19970131 |          |    |
| EP 891419   | A1       | 19990120 | EP |
| 1997-905789   | 19970131 |          |    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |          |          |    |
| JP 2000507812   | T2       | 20000627 | JP |
| 1997-532595   | 19970131 |          |    |
| US 2001033835   | A1       | 20011025 | US |
| 1997-792299   | 19970131 |          |    |
| US 6733746  | B2       | 20040511 |    |
| US 2004072349   | A1       | 20040415 | US |
| 2003-716619   | 20031120 |          |    |
| PRIORITY APPLN. INFO.: US   |          |          |    |
| 1996-13149P   | P        | 19960312 | US |
| 1997-792299   | A1       | 19970131 | WO |

1997-US1867 W 19970131  
AB The present invention provides a serum-free supplement which supports the growth of hematopoietic cells in culture. The supplement contains .gtoreq.1 ingredients selected from the group consisting of .gtoreq.1 antioxidant, .gtoreq.1 albumin or albumin substitute, .gtoreq.1 lipid agent, .gtoreq.1 insulin or insulin substitute, .gtoreq.1 transferrin or transferrin substitute, .gtoreq.1 trace element, and .gtoreq.1 glucocorticoid, wherein a basal cell culture medium supplemented with the supplement is capable of supporting the expansion of CD34+ hematopoietic cells and cells of myeloid lineage, in serum-free culture. The present invention also provides methods for culturing and for differentiating hematopoietic cells.

L7 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN

ACCESSION NUMBER: 1997:394163 CAPLUS  
DOCUMENT NUMBER: 127:23753  
TITLE: Stabilization of biological materials by drying without freezing  
INVENTOR(S): Winter, Gerhard  
PATENT ASSIGNEE(S): Boehringer Mannheim GmbH, Germany  
SOURCE: Ger. Offen., 32 pp.  
CODEN: GWXXBX

DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND     | DATE     |    |
|---|----------|----------|----|
| APPLICATION NO.   | DATE     |          |    |
| DE 19539574   | A1       | 19970430 | DE |
| 1995-19539574   | 19951025 |          |    |
| CA 2235243  | AA       | 19970501 | CA |
| 1996-2235243  | 19961024 |          |    |
| CA 2235243  | C        | 20030422 |    |
| WO 9715288  | A2       | 19970501 | WO |
| 1996-EP4627   | 19961024 |          |    |
| WO 9715288  | A3       | 19970529 |    |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |          |    |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM  |          |          |    |
| AU 9672984  | A1       | 19970515 | AU |
| 1996-72984  | 19961024 |          |    |
| AU 712489   | B2       | 19991111 |    |
| ZA 9608930  | A        | 19980424 | ZA |
| 1996-8930   | 19961024 |          |    |
| EP 857060   | A2       | 19980812 | EP |
| 1996-934811   | 19961024 |          |    |
| EP 857060   | B1       | 20020130 |    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI   |          |          |    |
| CN 1205628  | A        | 19990120 | CN |
| 1996-199329   | 19961024 |          |    |
| CN 1130196  | B        | 20031210 |    |
| BR 9611265  | A        | 19990504 | BR |
| 1996-11265  | 19961024 |          |    |
| JP 11513700   | T2       | 19991124 | JP |
| 1997-516286   | 19961024 |          |    |
| IL 124204   | A1       | 20011031 | IL |
| 1996-124204   | 19961024 |          |    |
| AT 212541   | E        | 20020215 | AT |
| 1996-934811   | 19961024 |          |    |
| PT 857060   | T        | 20020731 | PT |
| 1996-934811   | 19961024 |          |    |
| ES 2170274  | T3       | 20020801 | ES |
| 1996-934811   | 19961024 |          |    |
| RU 2191003  | C2       | 20021020 | RU |
| 1998-109886   | 19961024 |          |    |
| SK 283664   | B6       | 20031104 | SK |
| 1998-509  | 19961024 |          |    |

NO 9801868 A 19980625 NO  
 1998-1868 19980424  
 US 2001055617 A1 20011227 US  
 1998-51918 19980427  
 US 2003059468 A1 20030327 US  
 2002-141960 20020510  
 PRIORITY APPLN. INFO.: DE  
 1995-19539574 A 19951025  
 1996-EP4627 W 19961024  
 1998-51918 A3 19980427  
 AB A biol., esp. therapeutic, material is  
 stabilized and preserved by prepg.  
 a soln. of (1) the material, (2) a  
 carbohydrate or a zwitterionic compd.  
 with polar residues, and (3) a  
 zwitterionic compd. with nonpolar residues,  
 and drying the soln. at a temp. above its  
 f.p. The process does not  
 involve use of elevated temps., can be  
 carried out in conventional  
 lyophilization app., is energy efficient,  
 and is more rapid than freeze  
 drying. Thus, a soln. contg. maltose 50,  
 L-phenylalanine 10, L-  
 \*\*\*arginine\*\*\* 10, polysorbate 80  
 0.1, and recombinant human \*\*\*G\*\*\*  
 - \*\*\*CSF\*\*\* 0.35 mg/mL (pH 7.4) was  
 sterilized by filtration and 1-mL  
 portions were dispensed into 2-mL vials  
 fitted with lyophilization  
 stoppers and dried isothermally at  
 20.degree. and reduced pressure for 48  
 h. The product had a residual water  
 content of 1.16% and a glass  
 transition temp. of 75.degree.. The  
 content of native (monomeric)  
 \*\*\*G\*\*\* - \*\*\*CSF\*\*\* was still  
 99.83% after 13 wk storage at  
 50.degree..

L7 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2004  
 ACS on STN  
 ACCESSION NUMBER: 1995:615193 CAPLUS  
 DOCUMENT NUMBER: 123:25669  
 TITLE: Peptides derived from  
 hemopoietic growth factors as  
 antagonists of the  
 growth factors  
 INVENTOR(S): Vadas, Mathew  
 Alexander; Lopez, Angel Francisco;  
 Shannon, Mary Frances  
 PATENT ASSIGNEE(S): Medvet Science Pty.  
 Ltd., Australia  
 SOURCE: PCT Int. Appl., 60  
 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

| PATENT NO.                      | KIND                            | DATE     |
|---------------------------------|---------------------------------|----------|
| APPLICATION NO.                 | DATE                            |          |
| -----                           | -----                           | ---      |
| WO 9504075                      | A1                              | 19950209 |
| 1994-AU432                      | 19940728                        | WO       |
| W:                              | AM, AT, AU, BB, BG, BR, BY, CA, |          |
| CH, CN, CZ, DE, DK, ES, FI, GB, |                                 |          |

GE, HU, JP, KE, KG, KP, KR, KZ,  
 LK, LT, LU, LV, MD, MG, MN, MW,  
 NL, NO, NZ, PL, PT, RO, RU, SD,  
 SE, SI, SK, TJ, TT, UA, US, UZ, VN  
 RW: KE, MW, SD, AT, BE, CH, DE, DK,  
 ES, FR, GB, GR, IE, IT, LU, MC,  
 NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, ML, MR, NE, SN, TD, TG  
 CA 2168261 AA 19950209 CA  
 1994-2168261 19940728  
 AU 9473414 A1 19950228 AU  
 1994-73414 19940728  
 AU 690128 B2 19980423  
 EP 715633 A1 19960612 EP  
 1994-922181 19940728  
 R: AT, BE, CH, DE, DK, ES, FR, GB,  
 GR, IE, IT, LI, LU, MC, NL, PT, SE  
 JP 09501154 T2 19970204 JP  
 1994-505450 19940728  
 US 5939063 A 19990817 US  
 1996-591438 19960408  
 NZ 329156 A 20000728 NZ  
 1997-329156 19971111  
 AU 9934974 A1 19990909 AU  
 1999-34974 19990611  
 PRIORITY APPLN. INFO.: AU  
 1993-186 A 19930728  
 1994-4772 A 19940330  
 1994-AU432 W 19940728  
 1996-61153 A3 19960621  
 1997-269766 A1 19971111  
 AB Modified and variant forms of hemopoietic  
 growth factors (HGF) capable of  
 acting as antagonists to the  
 corresponding native hemopoietic growth  
 factors are described for use in  
 ameliorating aberrant effects caused by  
 the native mols. A modified hemopoietic  
 growth factor (HGF) is  
 characterized by being in unglycosidated  
 form and has an .alpha.-helical  
 domain with one or more of any exposed  
 acidic amino acids substituted with  
 a basic amino acid. The preferred HGF  
 are granulocyte-macrophage  
 colony-stimulating factor (GM-CSF),  
 interleukins (IL)-2, IL-3, IL-4, IL-5,  
 IL-6, IL-7, IL-9, IL-10, \*\*\*G\*\*\* -  
 \*\*\*CSF\*\*\* and erythropoietin  
 (EPO). The synthesis and biol. activity  
 of a no. of such peptides is  
 demonstrated.

L7 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2004  
 ACS on STN  
 ACCESSION NUMBER: 1993:510553 CAPLUS  
 DOCUMENT NUMBER: 119:110553  
 TITLE: Fusion protein-  
 nucleic acid complexes for introduction  
 of nucleic acids into  
 cells  
 INVENTOR(S): Stern, Anne;  
 Hagemann, Irene; Ziegler-Landesberger,  
 Doris  
 PATENT ASSIGNEE(S): Boehringer Mannheim  
 G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 17  
PP.

DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.      | KIND | DATE |
|-----------------|------|------|
| APPLICATION NO. | DATE |      |

|             |          |          |    |
|-------------|----------|----------|----|
| EP 544292   | A2       | 19930602 | EP |
| 1992-120205 | 19921126 |          |    |

|                                    |    |          |    |
|------------------------------------|----|----------|----|
| EP 544292                          | A3 | 19930915 |    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, |    |          |    |
| GR, IE, IT, LI, LU, NL, PT, SE     |    |          |    |
| DE 4139001                         | A1 | 19930603 | DE |

|              |          |          |    |
|--------------|----------|----------|----|
| 1991-4139001 | 19911127 |          |    |
| JP 06303987  | A2       | 19941101 | JP |

|                        |          |    |  |
|------------------------|----------|----|--|
| 1992-318741            | 19921127 |    |  |
| PRIORITY APPLN. INFO.: |          | DE |  |

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|--------------|----------|--|--|
| 1991-4139001 | 19911127 |  |  |
|--------------|----------|--|--|

AB The title fusion protein comprises a protein with affinity for the target cell (e.g., a growth factor, hormone, viral antigen) fused to a polycationic peptide contg. .gtoreq.3 Lys and/or Arg residues. The complex can be used for genetic transformation of target cells. Nerve growth factor and \*\*\*granulocyte\*\*\*

\*\*\*colony\*\*\* -  
\*\*\*stimulating\*\*\* \*\*\*factor\*\*\*  
fusion proteins were prepd. with Escherichia coli. The NGF fusion protein complexed with DNA was used to transform murine leukemia cell line NFS60.

L7 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN

ACCESSION NUMBER: 1993:1980 CAPLUS  
DOCUMENT NUMBER: 118:1980  
TITLE: Improving the resolubilization of proteins synthesized in an heterologous host and accumulated as inclusion bodies

INVENTOR(S): Ambrosius, Dorothea;  
Dony, Carola; Rudolph, Rainer  
PATENT ASSIGNEE(S): Boehringer Mannheim  
G.m.b.H., Germany  
SOURCE: Eur. Pat. Appl., 18  
PP.

DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.      | KIND | DATE |
|-----------------|------|------|
| APPLICATION NO. | DATE |      |

|             |          |          |    |
|-------------|----------|----------|----|
| EP 500108   | A2       | 19920826 | EP |
| 1992-102864 | 19920220 |          |    |

|           |    |          |  |
|-----------|----|----------|--|
| EP 500108 | A3 | 19930407 |  |
| EP 500108 | B1 | 19961016 |  |

R: AT, BE, CH, DE, DK, ES, FR, GB,  
GR, IT, LI, LU, NL, PT, SE

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|------------|----|----------|----|
| DE 4105480 | A1 | 19920827 | DE |
|------------|----|----------|----|

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|--------------|----------|--|--|
| 1991-4105480 | 19910221 |  |  |
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|------------|----|----------|----|
| AU 9210948 | A1 | 19920827 | AU |
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| 1992-10948 | 19920214 |  |  |
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| AU 641081 | B2 | 19930909 |  |
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| CA 2061569 | AA | 19920822 | CA |
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| 1992-2061569 | 19920220 |  |  |
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| CA 2061569 | C | 20001024 |  |
|------------|---|----------|--|

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| FI 9200742 | A | 19920822 | FI |
|------------|---|----------|----|

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| 1992-742 | 19920220 |  |  |
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| NO 9200671 | A | 19920824 | NO |
|------------|---|----------|----|

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| 1992-671 | 19920220 |  |  |
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| ZA 9201230 | A | 19921125 | ZA |
|------------|---|----------|----|

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| 1992-1230 | 19920220 |  |  |
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| JP 05244977 | A2 | 19930924 | JP |
|-------------|----|----------|----|

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| 1992-33257 | 19920220 |  |  |
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| JP 2528232 | B2 | 19960828 |  |
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| HU 68021 | A2 | 19950404 | HU |
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| 1992-548 | 19920220 |  |  |
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|-----------|---|----------|--|
| HU 214881 | B | 19980728 |  |
|-----------|---|----------|--|

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|-----------|----|----------|----|
| IL 101024 | A1 | 19960618 | IL |
|-----------|----|----------|----|

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|-------------|----------|--|--|
| 1992-101024 | 19920220 |  |  |
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|-----------|---|----------|----|
| AT 144284 | E | 19961115 | AT |
|-----------|---|----------|----|

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| 1992-102864 | 19920220 |  |  |
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| ES 2093122 | T3 | 19961216 | ES |
|------------|----|----------|----|

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| 1992-102864 | 19920220 |  |  |
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|-----------|----|----------|----|
| CZ 282744 | B6 | 19970917 | CZ |
|-----------|----|----------|----|

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| 1992-499 | 19920220 |  |  |
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|------------|---|----------|----|
| US 5578710 | A | 19961126 | US |
|------------|---|----------|----|

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|-------------|----------|--|--|
| 1993-139054 | 19931021 |  |  |
|-------------|----------|--|--|

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| PRIORITY APPLN. INFO.: |  | DE |  |
|------------------------|--|----|--|

|              |   |          |  |
|--------------|---|----------|--|
| 1991-4105480 | A | 19910221 |  |
|--------------|---|----------|--|

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|  |  |  | US |
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|-------------|----|----------|--|
| 1992-837779 | B1 | 19920214 |  |
|-------------|----|----------|--|

AB The resolubilization of proteins that accumulate as inclusion bodies when synthesized in an heterologous host is made more efficient by synthesizing the protein with an N- or C-terminal addn. of a hydrophilic peptide of 5-20 amino acids. The peptide is made up of amino acids with a neg. relative hydrophobicity such as Cys, Ser, Gln, Lys, Arg, or Pro. A series of peptides for addn. to the N-terminus of a protein were designed and oligonucleotides encoding them were introduced at the 5'-end of a sequence encoding \*\*\*granulocyte\*\*\*

\*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*

\*\*\*factor\*\*\* ( \*\*\*G\*\*\* - \*\*\*CSF\*\*\*

) and the genes expressed in

Escherichia coli. Inclusion bodies were

prepd., and solubilized in concd.

guanidine. hydrochloride and renatured in

an \*\*\*arginine\*\*\* -based

buffer by methods of the prior art.

Recovery of \*\*\*G\*\*\* - \*\*\*CSF\*\*\*

was measured by an in vitro test with a

\*\*\*G\*\*\* - \*\*\*CSF\*\*\*

-dependent cell line. After optimization

of renaturation conditions,

recoveries of .gtoreq.80% of the biol.

activity could be found with

longer, more hydrophobic, peptides having

greater effects than shorter

ones with two adjacent glutamate residues

having a significant effect.

L7 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2004

ACS on STN

ACCESSION NUMBER: 1991:445253 CAPLUS  
DOCUMENT NUMBER: 115:45253  
TITLE: Imaging tissue sites  
of inflammation  
INVENTOR(S): Morgan, A. Charles,  
Jr.; Anderson, David C.  
PATENT ASSIGNEE(S): NeoRx Corp., USA  
SOURCE: PCT Int. Appl., 73  
PP.

CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND     | DATE     |    |
|---|----------|----------|----|
| APPLICATION NO.   | DATE     |          |    |
| WO 9010463  | A1       | 19900920 | WO |
| 1990-US1399   | 19900314 |          |    |
| W: CA, JP   |          |          |    |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE  |          |          |    |
| US 4986979  | A        | 19910122 | US |
| 1989-364687   | 19890609 |          |    |
| CA 2055431  | AA       | 19900915 | CA |
| 1990-2055431  | 19900314 |          |    |
| EP 463116   | A1       | 19920102 | EP |
| 1990-906490   | 19900314 |          |    |
| R: AT, BE, DE, DK, FR, GB, IT, LU, NL, SE   |          |          |    |
| JP 04504129   | T2       | 19920723 | JP |
| 1990-506097   | 19900314 |          |    |
| US 5376356  | A        | 19941227 | US |
| 1991-726894   | 19910708 |          |    |
| PRIORITY APPLN. INFO.: US   |          |          |    |
| 1989-324285   | 19890314 |          |    |
| US  |          |          |    |
| 1989-364687   | 19890609 |          |    |
| WO  |          |          |    |
| 1990-US1399   | 19900314 |          |    |
| OTHER SOURCE(S): MARPAT 115:45253   |          |          |    |
| AB The site of tissue inflammation is imaged by infusing into a patient labeled (and unlabeled) recognition agent capable of interacting selectively with activated leukocytes accumulated at the site and imaging the tissue site. The recognition agent is, e.g., a monoclonal antibody or fragment directed against a leukocyte activation marker or a complement receptor or component, a chemotactic peptide, leukotriene, eosinophilic peptide, etc., and is labeled with <sup>111</sup> In or <sup>99m</sup> Tc. |          |          |    |

L7 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1990:401547 CAPLUS  
DOCUMENT NUMBER: 113:1547  
TITLE: Site-specific  
homogeneous modification of polypeptides  
to facilitate  
covalent linkages to a hydrophilic  
moiety  
INVENTOR(S): Shaw, Gray  
ASSIGNEE(S): Genetics Institute,

SOURCE: PCT Int. Appl., 37  
PP.

CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND     | DATE     |    |
|--|----------|----------|----|
| APPLICATION NO.  | DATE     |          |    |
| WO 8905824   | A1       | 19890629 | WO |
| 1988-US4633  | 19881222 |          |    |
| W: AU, JP  |          |          |    |
| RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE   |          |          |    |
| US 4904584   | A        | 19900227 | US |
| 1987-137043  | 19871223 |          |    |
| AU 8929111   | A1       | 19890719 | AU |
| 1989-29111   | 19881222 |          |    |
| EP 355142  | A1       | 19900228 | EP |
| 1989-901043  | 19881222 |          |    |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE  |          |          |    |
| JP 02502646  | T2       | 19900823 | JP |
| 1989-500925  | 19881222 |          |    |
| PRIORITY APPLN. INFO.: US  |          |          |    |
| 1987-137043  | 19871223 |          |    |
| WO   |          |          |    |
| 1988-US4633  | 19881222 |          |    |
| AB To improve the homogeneity of chem. modification of a protein by a hydrophilic moiety e.g. polyethylene glycol, the no. of potentially reactive ***lysines*** on the surface of the protein is changed by site-directed mutagenesis of the cloned gene. ***Lysines*** are substituted with or for ***arginine*** as necessary. An Arg16, Arg34, Lys147 deriv. of ***granulocyte*** ***colony*** ***stimulating*** ***factor*** was prep'd. by oligonucleotide-directed site-specific mutagenesis of the cloned gene in the plasmid pXMT2G-CSF. After expression of the altered gene in animal cells the protein may be conjugated with polyethylene glycol by std. methods. |          |          |    |

L7 ANSWER 29 OF 30 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN DUPLICATE 5  
ACCESSION NUMBER: 1988-209830 [30] WPIDS  
DOC. NO. CPI: C1988-093776  
TITLE: Stable  
\*\*\*granulocyte\*\*\* - \*\*\*colony\*\*\*  
\*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* prepn. - contg. e.g. aminoacid, as stabiliser, accelerates growth and differentiation of neutrophile.  
DERWENT CLASS: B04 D16  
PATENT ASSIGNEE(S): (CHUS) CHUGAI PHARM CO LTD  
COUNTRY COUNT: 1  
PATENT INFORMATION:

| LA | PATENT NO<br>PG | KIND | DATE               | WEEK |
|----|-----------------|------|--------------------|------|
| 6  | JP 63146829     | A    | 19880618 (198830)* |      |
| 5  | JP 2577744      | B2   | 19970205 (199710)  |      |

# APPLICATION DETAILS:

| PATENT NO<br>APPLICATION | KIND<br>DATE |    |
|--------------------------|--------------|----|
| JP 63146829              | A            | JP |
| 1987-178035              | 19870716     |    |
| JP 2577744               | B2           | JP |
| 1987-178035              | 19870716     |    |

# FILING DETAILS:

| PATENT NO  | KIND              |    |
|------------|-------------------|----|
| JP 2577744 | B2 Previous Publ. | JP |
| 63146829   |                   |    |

PRIORITY APPLN. INFO: JP 1986-169490  
19860718; JP

19870716  
AN 1988-209830 [30] WPIDS  
AB JP 63146829 A UPAB: 19930923  
A stable \*\*\*granulocyte\*\*\* -  
\*\*\*colony\*\*\* \*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* prepn. contains  
\*\*\*granulocyte\*\*\* - \*\*\*colony\*\*\*  
\*\*\*stimulating\*\*\* \*\*\*factor\*\*\* (   
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* ) and one  
stabiliser selected from pharmaceutically  
permissible amino acid, S-contg.  
reducing agents and antioxidants.  
Usable \*\*\*G\*\*\* - \*\*\*CSF\*\*\* is  
one purified from culture of  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* producing cells  
or one produced by recombinant DNA  
techniques. Usable amino acids are  
glycine, threonine, tryptophan,  
\*\*\*lysine\*\*\*, hydroxylysine,  
histidine, \*\*\*arginine\*\*\*, cysteine,  
cystine, and methionine. Usable S-contg.  
reducing agents are  
N-acetylcysteine, N-acetylhomocysteine,  
thioctic acid, thiodiglycol  
thioethanolamine, thioglycerol,  
thiosorbitol, thioglycolic acid, sodium  
thiosulphate, sodium bisulphite, sodium  
pyrosulphite, sodium sulphite,  
thiolactic acid, dithiothreitol,  
glutathione, etc.. Usable antioxidants  
are erisorbic acid,  
dibutylhydroxytoluene, butylhydroxyannisol,  
dl-alpha-tocopherol, L-ascorbic acid,  
EDTA, triamyl gallate, etc.. Pref.  
amt. of stabiliser is 1-10,000 wt. parts  
for 1 wt. part of \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\*.  
USE/ADVANTAGE - \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\* accelerates growth and

differentiation of neutrophile and is  
useful for infectious diseases.  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* is effective at  
a dose of 0.1 - 500 microg.  
However, \*\*\*G\*\*\* - \*\*\*CSF\*\*\* is  
easily adsorbed to walls of  
injection ampoules and its activity is  
easily decreased by factors such as  
temp, humidity, oxygen and UV. This  
prepn. solves these problems and loss  
of expensive \*\*\*G\*\*\* - \*\*\*CSF\*\*\*  
during storage is avoided. In  
addn., administration of precise amt. of  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* becomes  
possible.  
0/0

L7 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1988:217269 CAPLUS  
DOCUMENT NUMBER: 108:217269  
TITLE: High-yield expression  
of modified human  
\*\*\*granulocyte\*\*\*  
\*\*\*colony\*\*\* -  
\*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* gene in yeast and  
Escherichia coli  
INVENTOR(S): Cerretti, Douglas  
Pat; Cosman, David John; Gillis,  
Stephen; Mochizuki,  
Diane Yukiko; March, Carl Jack;  
Price, Virginia Lee;  
Tushinski, Robert J.; Urdal,  
David Lloyd  
PATENT ASSIGNEE(S): Immunex Corp., USA  
SOURCE: Eur. Pat. Appl., 38  
pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.<br>APPLICATION NO.  | KIND<br>DATE |             |
|--|--------------|-------------|
| EP 243153  | A2           | 19871028 EP |
| 1987-303509  | 19870422     |             |
| EP 243153  | A3           | 19880113    |
| R: AT, BE, CH, DE, ES, FR, GB, GR,<br>IT, LI, LU, NL, SE   |              |             |
| ZA 8702705   | A            | 19871230 ZA |
| 1987-2705  | 19870415     |             |
| DK 8702031   | A            | 19871023 DK |
| 1987-2031  | 19870421     |             |
| JP 63000299  | A2           | 19880105 JP |
| 1987-98465   | 19870421     |             |
| AU 8771844   | A1           | 19871029 AU |
| 1987-71844   | 19870422     |             |
| AU 601727  | B2           | 19900920    |
| PRIORITY APPLN. INFO.: 1986-856643   | 19860422     | US          |
| 1986-931458  | 19861114     | US          |
| AB Human ***granulocyte***<br>***colony*** - ***stimulating***<br>***factor*** (hG-CSF) derivs. are<br>recombinantly produced in high yields |              |             |

in yeast and Escherichia coli hosts.  
 Plasmid pBC102.K22 was constructed  
 contg. a site-specifically mutagenized  
 hG-CSF gene (having the codon for  
 \*\*\*arginine\*\*\* at position 22  
 replaced with that for \*\*\*lysine\*\*\*  
 such that a KEX2 protease-sensitive site  
 is eliminated) linked at the  
 5'-end via a KEX2 recognition site to an  
 .alpha.-factor leader sequence  
 and a sequence encoding an antigenic  
 peptide capable of cleavage by bovine  
 enterokinase. Yeast transformed with  
 pBC102.K22 showed 5-fold higher  
 expression than yeast transformed with  
 vector contg. native hG-CSF protein  
 gene.

=> D IBIB ABS L8 1-12

L8 ANSWER 1 OF 12 MEDLINE on STN  
 ACCESSION NUMBER: 2004017822 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 14715517  
 TITLE: Induced nitric oxide  
 promotes intestinal inflammation  
 following hemorrhagic  
 shock.  
 AUTHOR: Hierholzer Christian;  
 Kalff Jorg C; Billiar Timothy R;  
 Bauer Anthony J; Tweardy  
 David J; Harbrecht Brian G  
 CORPORATE SOURCE: Department of Surgery,  
 University of Pittsburgh Medical  
 Center, F1264-200 Lothrop  
 St., Pittsburgh, PA 15213, USA.  
 CONTRACT NUMBER: GM-44100 (NIGMS)  
 GM-55664 (NIGMS)  
 P50-GM-53789 (NIGMS)  
 SOURCE: American journal of  
 physiology. Gastrointestinal and liver  
 physiology, (2004 Feb) 286  
 (2) G225-33.  
 Journal code: 100901227.  
 ISSN: 0193-1857.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL  
 ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200403  
 ENTRY DATE: Entered STN: 20040113  
 Last Updated on STN:  
 20040304

Entered Medline: 20040303  
 AB In hemorrhagic shock (HS), increased  
 cytokine production contributes to  
 tissue inflammation and injury through  
 the recruitment of neutrophils  
 [polymorphonuclear cells (PMN)]. HS  
 stimulates the early expression of  
 inducible nitric oxide synthase (iNOS)  
 that modulates proinflammatory  
 activation after hemorrhage. Experiments  
 were performed to determine the  
 contribution of iNOS to gut inflammation  
 and dysmotility after HS. Rats  
 subjected to HS (mean arterial pressure  
 40 mmHg for 2.5 h followed by  
 resuscitation and death at 4 h)  
 demonstrated histological signs of mucosal

injury, impairment of intestinal smooth  
 muscle contractility,  
 extravasation of PMN, and increased gut  
 mRNA levels of ICAM-1, IL-6, and  
 \*\*\*granulocyte\*\*\* \*\*\*colony\*\*\* -  
 \*\*\*stimulating\*\*\* \*\*\*factor\*\*\*  
 ( \*\*\*G\*\*\* - \*\*\*CSF\*\*\* ). In  
 addition, DNA binding activity of  
 NF-kappaB and Stat3, an IL-6 signaling  
 intermediate, was significantly  
 increased. In shocked rats treated with  
 the selective iNOS inhibitor  
 L-N(6)-(1-iminoethyl) \*\*\*lysine\*\*\* at  
 the time of resuscitation,  
 histological signs of intestinal injury  
 and PMN infiltration were reduced  
 and muscle contractility was almost  
 completely restored. Selective iNOS  
 inhibition in shocked animals reduced the  
 binding activity of NF-kappaB  
 and Stat3 and reduced mRNA levels of  
 ICAM-1, IL-6, and \*\*\*G\*\*\* -  
 \*\*\*CSF\*\*\* . The results of studies  
 using iNOS knockout mice subjected to  
 HS were similar. We propose that early  
 upregulation of iNOS contributes  
 to the inflammatory response in the gut  
 wall and participates in the  
 activation of signaling cascades and  
 cytokine expression that regulate  
 intestinal injury, PMN recruitment, and  
 impaired gut motility.

L8 ANSWER 2 OF 12 WPIDS COPYRIGHT 2004  
 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2003-421352 [39] WPIDS  
 DOC. NO. CPI: C2003-110999  
 TITLE: Preparation of spray-  
 dried, drug-containing particles  
 useful for pulmonary  
 delivery of drug and for treating  
 disease involves  
 modulating the charge density of the  
 particles.  
 DERWENT CLASS: B04 B07 D16  
 INVENTOR(S): LEHRMAN, S R; STEVENSON,  
 C; YANG, B  
 PATENT ASSIGNEE(S): (INHA-N) INHALE  
 THERAPEUTIC SYSTEMS INC  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

| PATENT NO                            | KIND | DATE     | WEEK         |
|--------------------------------------|------|----------|--------------|
| LA PG                                |      |          |              |
| WO 2003035028                        | A1   | 20030501 | (200339)* EN |
| RW: AT BE BG CH CY CZ DE DK EA EE ES |      |          |              |
| FI FR GB GH GM GR IE IT KE LS LU     |      |          |              |
| MC MW MZ NL OA PT SD SE SK SL SZ     |      |          |              |
| TR TZ UG ZM ZW                       |      |          |              |
| W: AE AG AL AM AT AU AZ BA BB BG BR  |      |          |              |
| BY BZ CA CH CN CO CR CU CZ DE DK     |      |          |              |
| DM DZ EC EE ES FI GB GD GE GH GM     |      |          |              |
| HR HU ID IL IN IS JP KE KG KP KR     |      |          |              |
| KZ LC LK LR LS LT LU LV MA MD MG     |      |          |              |
| MK MN MW MX MZ NO NZ OM PH PL PT     |      |          |              |
| RO RU SD SE SG SI SK SL TJ TM TN     |      |          |              |
| TR TT TZ UA UG US UZ VC VN YU ZA     |      |          |              |
| ZM ZW                                |      |          |              |



## APPLICATION DETAILS:

| PATENT NO<br>APPLICATION | KIND<br>DATE |    |
|--------------------------|--------------|----|
| WO 2003035028            | A1           | WO |
| 2002-US33016             | 20021016     |    |

PRIORITY APPLN. INFO: US 2001-330073P  
20011019

AN 2003-421352 [39] WPIDS  
AB WO2003035028 A UPAB: 20030619  
NOVELTY - Preparation (M) of spray-dried,  
drug containing particles  
comprising combining an aqueous solution  
with a drug and an optional  
excipient, and spray drying the solution  
to form the spray-dried,  
drug-containing particles, is new.

DETAILED DESCRIPTION - In M, the  
aqueous solution has a pH that is  
different from the effective pI of the  
combination of the drug and the  
excipient. The net charge is associated  
with the drug and optional

excipient as a result of an absolute  
difference between the pH and the pI.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - M is useful for producing  
spray-dried, drug-containing  
particles; in the treatment of disease  
(claimed) useful for pulmonary  
delivery of drug.

ADVANTAGE - The formulation is  
stable and the dispersibility of the  
formulation can be maintained over 12-  
weeks; exhibits a drop in emitted  
dose of not more than 25% over 12-weeks;  
has moisture content of 6 wt.%.

The mass median aerodynamic diameter  
(MMAD) of the spray-dried  
drug-containing particles is 0.1 - 5  $\mu$ m.  
The bulk density of the  
formulation is 0.1 - 2 g/cm<sup>3</sup>. The method  
improves, maintains and optimizes  
the dispersibility of the particles. The  
formulation shows improvement in  
aerosol properties, thus reducing costly  
drug losses to the inhalation  
device; reducing the amount administered  
due to high aerosolization  
efficiency, and reducing the number of  
inhalations per day by increasing  
the amount of aerosolized drug that  
reaches the lungs of the patient.

Dwg.0/0

L8 ANSWER 3 OF 12 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN  
ACCESSION NUMBER: 2002-415697 [44] WPIDS  
CROSS REFERENCE: 2002-404689 [43]; 2002-  
425749 [45]; 2002-527345 [56]  
DOC. NO. CPI: C2002-117304  
TITLE: New synthetic protein,  
useful for inducing erythropoiesis  
or apoptosis or reducing  
inflammation, comprising

pseudoamino acid residue  
with a ribosomally-specified  
amino acid sidechain  
attached to thiol.

DERWENT CLASS: B04  
INVENTOR(S): BOTTI, P; BRADBURNE, J  
A; CHEN, S; CRESSMAN, S; HUNTER, C  
L; KENT, S B H;  
KOCHENDOERFER, G; LOW, D W;  
KOCHENDOERFER, G G;  
WILKEN, J G  
PATENT ASSIGNEE(S): (GRYP-N) GRYPHON SCI;  
(GRYP-N) GRYPHON THERAPEUTICS INC;  
(BOTT-I) BOTTI P; (BRAD-  
I) BRADBURNE J A; (CHEN-I) CHEN  
S; (CRES-I) CRESSMAN S;  
(HUNT-I) HUNTER C L; (KENT-I)  
KENT S B H; (KOCH-I)  
KOCHENDOERFER G G; (LOWD-I) LOW D W  
COUNTRY COUNT: 84  
PATENT INFORMATION:

| PATENT NO<br>LA PG                   | KIND DATE   | WEEK         |
|--------------------------------------|-------------|--------------|
| WO 2002020034                        | A1 20020314 | (200244)* EN |
| 110                                  |             |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB |             |              |
| GH GM GR IE IT KE LS LU MC MW MZ     |             |              |
| NL OA PT SD SE SL SZ TR TZ UG ZW     |             |              |
| W: AL AM AT AU AZ BA BB BG BR BY CA  |             |              |
| CH CN CU CZ DE DK EE ES FI GB GE     |             |              |
| GH HU IL IS JP KE KG KP KR KZ LC     |             |              |
| LK LR LS LT LU LV MD MG MK MN MW     |             |              |
| MX NO NZ PL PT RO RU SD SE SG SI     |             |              |
| SK SL TJ TM TR TT UA UG US UZ VN     |             |              |
| YU ZW                                |             |              |
| AU 2001073388                        | A 20020322  | (200251)     |
| EP 1315513                           | A2 20030604 | (200337) EN  |
| R: AL AT BE CH CY DE DK ES FI FR GB  |             |              |
| GR IE IT LI LT LU LV MC MK NL PT     |             |              |
| RO SE SI TR                          |             |              |
| NO 2003001047                        | A 20030508  | (200343)     |
| NO 2003001048                        | A 20030508  | (200343)     |
| NO 2003001049                        | A 20030508  | (200343)     |
| KR 2003046411                        | A 20030612  | (200370)     |
| US 2003208046                        | A1 20031106 | (200374)     |
| KR 2003057529                        | A 20030704  | (200377)     |
| KR 2003061784                        | A 20030722  | (200381)     |
| CN 1457257                           | A 20031119  | (200412)     |
| ZA 2003000315                        | A 20040331  | (200426)     |

114

## APPLICATION DETAILS:

| PATENT NO<br>APPLICATION | KIND<br>DATE |    |
|--------------------------|--------------|----|
| WO 2002020034            | A1           | WO |
| 2001-US21935             | 20010712     |    |
| AU 2001073388            | A            | AU |
| 2001-73388               | 20010712     |    |
| EP 1315513               | A2           | EP |
| 2001-952657              | 20010712     |    |
|                          |              | WO |
| 2001-US21935             | 20010712     |    |
| NO 2003001047            | A            | WO |
| 2001-US21930             | 20010712     |    |

|               |          |    |
|---------------|----------|----|
| 2003-1047     | 20030306 | NO |
| NO 2003001048 | A        | WO |
| 2001-US21935  | 20010712 | NO |
| 2003-1048     | 20030306 | WO |
| NO 2003001049 | A        | NO |
| 2001-US21928  | 20010712 | WO |
| 2003-1049     | 20030306 | NO |
| KR 2003046411 | A        | KR |
| 2003-702085   | 20030213 | WO |
| US 2003208046 | A1       | US |
| 2001-US21935  | 20010712 | US |
| 2003-332386   | 20030108 | KR |
| KR 2003057529 | A        | KR |
| 2003-702774   | 20030226 | KR |
| KR 2003061784 | A        | CN |
| 2003-702773   | 20030226 | ZA |
| CN 1457257    | A        |    |
| 2001-815290   | 20010712 |    |
| ZA 2003000315 | A        |    |
| 2003-315      | 20030113 |    |

# FILING DETAILS:

|               |             |    |
|---------------|-------------|----|
| PATENT NO     | KIND        |    |
| PATENT NO     |             |    |
| -----         |             |    |
| AU 2001073388 | A Based on  | WO |
| 2002020034    |             |    |
| EP 1315513    | A2 Based on | WO |
| 2002020034    |             |    |

PRIORITY APPLN. INFO: US 2000-236377P  
20000929; US

20000908; US 2000-231339P

2003-332386

20030108  
AN 2002-415697 [44] WPIDS  
CR 2002-404689 [43]; 2002-425749 [45]; 2002-527345 [56]  
AB WO 200220034 A UPAB: 20040421  
NOVELTY - Synthetic protein (I) containing a pseudo-amino acid (paa) residue in which the sidechain residue is -SRa, where Ra is an optionally substituted terminal portion (or its \*\*\*analog\*\*\* ) of a ribosomally-specified amino acid (raa) side chain.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:  
(1) Treatment of human diseases by administering at least one (I), of monomer molecular weight over 25 kD, that mimics the biological activity of a ribosomally specified, bioactive human protein receptor (or fragment), protein receptor ligand (or fragment), or a cytokine;  
(2) A method, designated 'pseudo-native chemical ligation', for synthesizing a polypeptide of formula (Ia); and  
(3) A polypeptide of formula (Ia).  
Q and W = one or more additional amino acids (aa);

aaN and aaC = N- and C-terminal aa;  
and  
aax and aay = internal aa with sidechains x and y.  
ACTIVITY - Erythropoietic; Antiinflammatory; Angiogenic; Cytostatic.  
A modified form of human erythropoietin (EPO) containing S-carboxymethylated Cys at position 89 had in vitro ED50 in human UT-7 (megakaryocytic leukemia) cells of 1570 pM; compare 32.5 pM for recombinant human EPO.  
MECHANISM OF ACTION - None given.  
USE - (I), which have the activity of protein receptors, or their ligands, or of cytokines, are useful in human medicine, e.g. for inducing erythropoiesis; inducing or reducing inflammation; initiating angiogenesis or vascularization; inducing apoptosis and modulating the cell cycle.  
ADVANTAGE - (I) can be produced by a chemical ligation method that:  
(1) is applicable to a wide variety of amino acid residues, (poly)peptides and other polymers;  
(2) uses an easily removed thiol-containing auxiliary; and  
(3) connects molecules through a native amide bond. Selected polymers can be attached at user-defined positions through selected types of bonds.  
Selected polymers can be attached at user-defined positions through selected types of bonds. Compared with native proteins, (I) may be more stable or have different specificities for substrates, inhibitors, receptors, ligands etc.  
Dwg.0/7

L8 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:353487 CAPLUS  
DOCUMENT NUMBER: 136:364900  
TITLE: Construction, cloning, recombinant expression and therapeutic use of single-chain dimeric \*\*\*granulocyte\*\*\*  
\*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* and other single-chain multimeric protein conjugates  
INVENTOR(S): Nissen, Torben Lauesgaard; Jensen, Anne Dam  
PATENT ASSIGNEE(S): Maxygen Aps, Den.; Maxygen Holdings Ltd.  
SOURCE: PCT Int. Appl., 108 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

|                 |      |      |
|-----------------|------|------|
| PATENT NO.      | KIND | DATE |
| APPLICATION NO. | DATE |      |

WO 2002036626 A1 20020510 WO  
 2001-DK724 20011101  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2002012108 A5 20020515 AU  
 2002-12108 20011101  
 US 2002142964 A1 20021003 US  
 2001-3496 20011101  
 EP 1334127 A1 20030813 EP  
 2001-980207 20011101  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 PRIORITY APPLN. INFO.: DK  
 2000-1647 A 20001102 US  
 2000-245727P P 20001102 WO  
 2001-DK724 W 20011101  
 AB The invention relates to single-chain multimeric polypeptides comprising at least two units of a monomeric polypeptide linked via a peptide bond or a peptide linker, wherein the monomeric polypeptide is of a type that is biol. active in monomeric form, and to polypeptide conjugates having at least one non-polypeptide moiety covalently bound to an attachment group of the polypeptide. The polypeptide is preferably a \*\*\*granulocyte\*\*\*  
 \*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*  
 \*\*\*factor\*\*\* ( \*\*\*G\*\*\* -  
 \*\*\*CSF\*\*\* ) dimer bound to a polymer mol., preferably to one or more polyethylene glycol (PEG) mols. Construction and cloning of a synthetic gene encoding single-chain \*\*\*G\*\*\* -  
 \*\*\*CSF\*\*\* dimer, expression of the single-chain \*\*\*G\*\*\* - \*\*\*CSF\*\*\* dimer in *Saccharomyces cerevisiae* and in CHO cells, purifn. of the recombinant single-chain \*\*\*G\*\*\* - \*\*\*CSF\*\*\* dimers from yeast and CHO cells, and covalent attachment of SPA-PEG to the purified single-chain \*\*\*G\*\*\* - \*\*\*CSF\*\*\* dimers are described. In vitro biol. activity of non-conjugated and conjugated single-chain \*\*\*G\*\*\* - \*\*\*CSF\*\*\* dimers, and in vivo

activity of the single-chain \*\*\*G\*\*\* -  
 \*\*\*CSF\*\*\* dimers in healthy rats and in rats with chemotherapy-induced neutropenia are reported.

REFERENCE COUNT: 9 THERE ARE 9  
 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL  
 CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 12 WPIDS COPYRIGHT 2004  
 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2002-075094 [10] WPIDS  
 DOC. NO. CPI: C2002-022327  
 TITLE: Protein conjugates that selectively target certain tissues and organs useful for treating and preventing various diseases, comprises glucose-aminoglycan-targeting domain conjugated to a therapeutic protein.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): SEREDA, T J; WIEBE, D J; WILLIAMS, A M; WOLOSKI, B M R  
 PATENT ASSIGNEE(S): (CANG-N) CANGENE CORP; (SERE-I) SEREDA T J; (WIEB-I) WIEBE D J; (WILL-I) WILLIAMS A M; (WOLO-I) WOLOSKI B M R  
 COUNTRY COUNT: 96  
 PATENT INFORMATION:

| PATENT NO  | KIND | DATE     | WEEK         |
|--|------|----------|--------------|
| LA PG  |      |          |              |
| WO 2001080899  | A2   | 20011101 | (200210)* EN |
| 121  |      |          |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW   |      |          |              |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW |      |          |              |
| AU 2001050212  | A    | 20011107 | (200219)     |
| EP 1274461   | A2   | 20030115 | (200306) EN  |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR   |      |          |              |
| US 2004037834  | A1   | 20040226 | (200416)     |

# APPLICATION DETAILS:

| PATENT NO     | KIND | DATE     |    |
|---------------|------|----------|----|
| APPLICATION   |      |          |    |
| WO 2001080899 | A2   |          | WO |
| 2001-CA533    |      | 20010420 |    |
| AU 2001050212 | A    |          | AU |
| 2001-50212    |      | 20010420 |    |
| EP 1274461    | A2   |          | EP |
| 2001-923439   |      | 20010420 |    |
|               |      |          | WO |
| 2001-CA533    |      | 20010420 |    |
| US 2004037834 | A1   |          | WO |
| 2001-CA533    |      | 20010420 |    |

2003-257377 20030610 US

FILING DETAILS:

| PATENT NO     | KIND        |
|---------------|-------------|
| AU 2001050212 | A Based on  |
| 2001080899    |             |
| EP 1274461    | A2 Based on |
| 2001080899    |             |

PRIORITY APPLN. INFO: US 2000-198613P  
20000420; US

2003-257377

20030610

AN 2002-075094 [10] WPIDS

AB WO 200180899 A UPAB: 20020213

NOVELTY - A conjugate (I) comprising an hyaluronic acid (HA)-binding protein (HABP1) or peptide (HABP2) contiguous with, or coupled to a polypeptide conjugated to a therapeutic agent, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated and purified nucleic acid sequence (II) encoding an HABP1 or peptide in sequence with a therapeutic agent;

(2) preparation (M1) of (I) by inserting a first nucleotide sequence encoding a HABP1 directly linked to a second nucleotide sequence encoding a therapeutic protein into a suitable vector, expressing the vector in an acceptable host, purifying conjugate molecule from host or expression medium;

(3) preparing a pharmaceutical for treating an animal in need of treatment, comprising the preparation of (I) and suspending (I) in a carrier, diluent or excipient;

(4) pharmaceutical composition (III) comprising (I).

ACTIVITY - Immunosuppressive; cytostatic.

MECHANISM OF ACTION - Gene therapy.

USE - (I) is useful for altering in vivo the distribution of a therapeutic agent comprising administering (I) to the animal where conjugate molecule will distribute primarily in tissues and organs containing high levels of endogenous HA; and for treating mammal with a disorder where a diseased tissue of the mammal contains high level of HA (claimed).

ADVANTAGE - Lower therapeutic dosages required also translates into lower immunogenicity of the conjugated protein as compared to the native protein. As a result, conjugates improves patient compliance and reduce direct and indirect costs associated with the drug substance and its

administration. Conjugates allows for the use, where appropriate, of lower, safer, dosages as compared to the conventional dosage requirements for the unconjugated corresponding therapeutic agent. Conjugate molecules has an increased half-life and potency, resulting in prolonged circulation of the molecule, efficient distribution into the target tissues, and increased bioavailability.

Dwg.0/0

L8 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2004  
ACS on STN

ACCESSION NUMBER: 1995:615193 CAPLUS

DOCUMENT NUMBER: 123:25669

TITLE: Peptides derived from hemopoietic growth factors as antagonists of the growth factors

INVENTOR(S): Vadas, Mathew  
Alexander; Lopez, Angel Francisco;  
Shannon, Mary Frances

PATENT ASSIGNEE(S): Medvet Science Pty.  
Ltd., Australia

SOURCE: PCT Int. Appl., 60  
PP.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     |
|---|------|----------|
| APPLICATION NO.   | DATE |          |
| WO 9504075  | A1   | 19950209 |
| 1994-AU432  |      | 19940728 |
| W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, VN |      |          |
| RW: KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |
| CA 2168261  | AA   | 19950209 |
| 1994-2168261  |      | 19940728 |
| AU 9473414  | A1   | 19950228 |
| 1994-73414  |      | 19940728 |
| AU 690128   | B2   | 19980423 |
| EP 715633   | A1   | 19960612 |
| 1994-922181   |      | 19940728 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE   |      |          |
| JP 09501154   | T2   | 19970204 |
| 1994-505450   |      | 19940728 |
| US 5939063  | A    | 19990817 |
| 1996-591438   |      | 19960408 |
| NZ 329156   | A    | 20000728 |
| 1997-329156   |      | 19971111 |
| AU 9934974  | A1   | 19990909 |
| 1999-34974  |      | 19990611 |
| PRIORITY APPLN. INFO.:  |      | AU       |
| 1993-186  | A    | 19930728 |
|   |      | AU       |
| 1994-4772   | A    | 19940330 |

1994-AU432 W 19940728 WO  
 1996-61153 A3 19960621 AU  
 1997-269766 A1 19971111 NZ  
 AB Modified and variant forms of hemopoietic growth factors (HGF) capable of acting as antagonists to the corresponding native hemopoietic growth factors are described for use in ameliorating aberrant effects caused by the native mols. A modified hemopoietic growth factor (HGF) is characterized by being in unglycosidated form and has an .alpha.-helical domain with one or more of any exposed acidic amino acids substituted with a basic amino acid. The preferred HGF are granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukins (IL)-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, \*\*\*G\*\*\* - \*\*\*CSF\*\*\* and erythropoietin (EPO). The synthesis and biol. activity of a no. of such peptides is demonstrated.

L8 ANSWER 7 OF 12 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1995-022474 [03] WPIDS  
 DOC. NO. CPI: C1995-010374  
 TITLE: New polymer complexes of biologically active peptide(s) or proteins - are used to amplify delivery of the active agent using the vitamin B12 uptake system.  
 DERWENT CLASS: A96 B04 B05  
 INVENTOR(S): GOULD, A R; MCINERNEY, B V; RUSSELL-JONES, G J; WESTWOOD, S W; RUSSELL, J G J  
 PATENT ASSIGNEE(S): (BIOT-N) BIOTECH AUSTRALIA PTY LTD  
 COUNTRY COUNT: 57  
 PATENT INFORMATION:

| PATENT NO                        | KIND | DATE                  | WEEK |
|----------------------------------|------|-----------------------|------|
| WO 9427641                       | A1   | 19941208 (199503)* EN |      |
| 37                               |      |                       |      |
| LU MC NL OA PT SE                |      |                       |      |
| DK ES FI GB GE HU JP KG KP KR KZ |      |                       |      |
| PT RO RU SD SE SI SK TJ TT UA US |      |                       |      |
| UZ VN                            |      |                       |      |
| AU 9467903                       | A    | 19941220 (199512)     |      |
| US 5449720                       | A    | 19950912 (199542)     |      |
| 10                               |      |                       |      |
| ZA 9403599                       | A    | 19960131 (199610)     |      |
| 34                               |      |                       |      |
| BR 9406725                       | A    | 19960206 (199612)     |      |
| EP 701448                        | A1   | 19960320 (199616) EN  |      |
| LI LU MC NL PT SE                |      |                       |      |
| CZ 9503083                       | A3   | 19960417 (199623)     |      |

67 JP 08510261 W 19961029 (199705)  
 EP 701448 A4 19970102 (199721)  
 CN 1126441 A 19960710 (199749)  
 HU 75058 T 19970328 (199750)  
 SG 46223 A1 19980220 (199821)  
 AU 706723 B 19990624 (199936)  
 IL 109745 A 20000131 (200015)  
 RU 2139732 C1 19991020 (200039)  
 EP 701448 B1 20020814 (200255) EN  
 R: AT BE CH DE DK ES FR GB GR IE IT  
 LI LU MC NL PT SE SI  
 DE 69431185 E 20020919 (200269)

# APPLICATION DETAILS:

| PATENT NO   | KIND | DATE     |    |
|-------------|------|----------|----|
| WO 9427641  | A1   |          | WO |
| 1994-AU273  |      | 19940524 |    |
| AU 9467903  | A    |          | AU |
| 1994-67903  |      | 19940524 |    |
| 1994-AU273  |      | 19940524 | WO |
| US 5449720  | A    |          | US |
| 1993-64892  |      | 19930524 |    |
| ZA 9403599  | A    |          | ZA |
| 1994-3599   |      | 19940524 |    |
| BR 9406725  | A    |          | BR |
| 1994-6725   |      | 19940524 |    |
| 1994-AU273  |      | 19940524 | WO |
| EP 701448   | A1   |          | EP |
| 1994-916096 |      | 19940524 |    |
| 1994-AU273  |      | 19940524 | WO |
| CZ 9503083  | A3   |          | CZ |
| 1995-3083   |      | 19940524 |    |
| JP 08510261 | W    |          | WO |
| 1994-AU273  |      | 19940524 | JP |
| 1995-500022 |      | 19940524 |    |
| EP 701448   | A4   |          | EP |
| 1994-916096 |      |          |    |
| CN 1126441  | A    |          | CN |
| 1994-192682 |      | 19940524 |    |
| HU 75058    | T    |          | WO |
| 1994-AU273  |      | 19940524 |    |
| 1995-3343   |      | 19940524 | HU |
| SG 46223    | A1   |          | SG |
| 1996-1166   |      | 19940524 |    |
| AU 706723   | B    |          | AU |
| 1994-67903  |      | 19940524 |    |
| IL 109745   | A    |          | IL |
| 1994-109745 |      | 19940524 |    |
| RU 2139732  | C1   |          | WO |
| 1994-AU273  |      | 19940524 |    |
| 1995-122664 |      | 19940524 | RU |
| EP 701448   | B1   |          | EP |
| 1994-916096 |      | 19940524 |    |
| 1994-AU273  |      | 19940524 | WO |
| DE 69431185 | E    |          | DE |
| 1994-631185 |      | 19940524 |    |
| 1994-916096 |      | 19940524 | EP |

1994-AU273 19940524 WO

FILING DETAILS:

| PATENT NO   | KIND |                   |
|-------------|------|-------------------|
| AU 9467903  | A    | Based on WO       |
| 9427641     |      |                   |
| BR 9406725  | A    | Based on WO       |
| 9427641     |      |                   |
| EP 701448   | A1   | Based on WO       |
| 9427641     |      |                   |
| JP 08510261 | W    | Based on WO       |
| 9427641     |      |                   |
| HU 75058    | T    | Based on WO       |
| 9427641     |      |                   |
| AU 706723   | B    | Previous Publ. AU |
| 9467903     |      |                   |
|             |      | Based on WO       |
| 9427641     |      |                   |
| RU 2139732  | C1   | Based on WO       |
| 9427641     |      |                   |
| EP 701448   | B1   | Based on WO       |
| 9427641     |      |                   |
| DE 69431185 | E    | Based on EP       |
| 701448      |      |                   |
|             |      | Based on WO       |
| 9427641     |      |                   |

PRIORITY APPLN. INFO: US 1993-64892  
19930524

AN 1995-022474 [03] WPIDS

AB WO 9427641 A UPAB: 19950126

Complexes of formula (V-Q)n-P-(Q1-A)m (I) are new, in which V = a carrier which will bind to natural intrinsic factor selected from vitamin B12 or an analogue of this; n = the molar substitution ratio of V in the complex, and is 1.0-10; P = a polymer; A = a pharmaceutically active substance; m = the molar substitution ratio of A in the complex, and is a no. greater than 1.0 up to 1000; Q, Q1 = a covalent bond, or a spacer cpd. linking V, P and A by covalent bonds.

USE - The complexes can be used for delivery of peptide or protein pharmaceuticals using the VB12 uptake system. Admin. is oral, parenteral, transdermal, vaginal, anal, etc..

Dwg.0/0

ABEQ US 5449720 A UPAB: 19951026

Vitamin B12 or \*\*\*analog\*\*\* complex of formula (I) (V-Q)n-P-(Q1-A)m is new. In (I) V is carrier which will bind to natural intrinsic factor (IF) consisting of vitamin B12 or \*\*\*analog\*\*\* or deriv.; n is molar substitution ratio of V in complex and is 1.0-10(1.0-1.2); P is pharmaceutically-acceptable polymer; A is active cpd. (polypeptide or protein); m is molar substitution ratio of A in complex and is greater than 1.0 to 1000 (10-100); Q and Q' are covalent bond or spacer cpd. pref. at least one Q is a biodegradable spacer.

Pref. biodegradable portion is disulphide bond, ester linkage, glutamyl- \*\*\*lysine\*\*\* linkage, or diazo bond. Polymers include polysaccharides, chondroitin sulphate, poly(n-(2-hydroxypropyl)-methacrylamide), styrene-maleic acid anhydride copolymers, water-soluble, polyurethanes, etc. Q and Q' include opt. subst. opt. satd. 1-50C alkylene, cycloalkylene or aromatic with chain C's opt. replaced by N, O or S and opt. subst. Pref. spacer is thio-cleavable.

Polypeptides include hormones, growth factors, interleukin, \*\*\*GCSF\*\*\*, EPO, LHRH, and interferon. (I) is produced by reacting A with P to intermediate which is reacted with V, or V with P, then with A.

USE/ADVANTAGE - Complex amplifies the uptake of the drugs via the VB12 uptake system for adequate oral admin. using only small amt. expensive pharmaceuticals.

Dwg.0/0

L8 ANSWER 8 OF 12 SCISEARCH COPYRIGHT 2004  
THOMSON ISI on STN DUPLICATE 1  
ACCESSION NUMBER: 92:347820 SCISEARCH  
THE GENUINE ARTICLE: HX055  
TITLE: CONSTRUCTION OF PROTEIN  
\*\*\*ANALOGS\*\*\* BY SITE-SPECIFIC  
CONDENSATION OF  
UNPROTECTED FRAGMENTS

AUTHOR: GAERTNER H F (Reprint);  
ROSE K; COTTON R; TIMMS D; CAMBLE  
R; OFFORD R E

CORPORATE SOURCE: UNIV GENEVA, CTR MED,  
DEPT BIOCHIM MED, CTR 1 RUE MICHEL  
SERVET, CH-1211 GENEVA 4,  
SWITZERLAND (Reprint); ICI  
PHARMACEUT PLC,  
MACCLESFIELD, CHESHIRE, ENGLAND

COUNTRY OF AUTHOR: SWITZERLAND; ENGLAND

SOURCE: BIOCONJUGATE CHEMISTRY,  
(MAY/JUN 1992) Vol. 3, No. 3, pp.  
262-268.  
ISSN: 1043-1802.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: ENGLISH

REFERENCE COUNT: 34

\*ABSTRACT IS AVAILABLE IN  
THE ALL AND IALL FORMATS\*

AB The extreme sensitivity to periodate of 1-amino, 2-hydroxy compounds permits the selective conversion of N-terminal serine and threonine to an aldehydic group. We have used this reaction to construct analogues of human \*\*\*granulocyte\*\*\*  
\*\*\*colony\*\*\* \*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* ( \*\*\*G\*\*\* - \*\*\*CSF\*\*\* ) by allowing such oxidized peptides to react with others that have had a hydrazide derivative attached to the C-terminus by reversed proteolysis. Two recombinant analogues of \*\*\*G\*\*\* - \*\*\*CSF\*\*\* were used as starting materials.

Both had only a single \*\*\*lysine\*\*\* residue (at position 62 and 75, respectively) followed immediately by a serine. Digestion of each analogue by the \*\*\*lysine\*\*\* -specific protease from *Achromobacter lyticus* gave two fragments, one of which could be N-terminally oxidized and the other converted to the C-terminal hydrazide derivative by reversed proteolysis using the same enzyme. After preliminary studies with model peptides, we first reacted the corresponding peptide pairs together and then, in order to eliminate the 64-74 disulfide loop, fragment 1-62 from the first analogue with fragment 76-174 from the second. Reactions are efficient (up to 80 % product based on the oxidized fragment) and take place under very mild conditions. The hydrazone bond can easily be stabilized by reduction with NaBH<sub>3</sub>CN. This method represents a new, reasonably general route for the construction of large protein chimeras of precisely controlled structure.

L8 ANSWER 9 OF 12 MEDLINE on STN  
 ACCESSION NUMBER: 91153899 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 1705535  
 TITLE: Muroctasin [MDP-Lys(18)] augments the production of \*\*\*granulocyte\*\*\*  
 \*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*  
 \*\*\*factor\*\*\* ( \*\*\*G\*\*\* - \*\*\*CSF\*\*\* ) from human peripheral blood mononuclear cells in vitro.  
 AUTHOR: Shimoda K; Okamura S; Kawasaki C; Omori F; Matsuguchi T; Niho Y  
 CORPORATE SOURCE: Cancer Center, Faculty of Medicine, Kyushu University, Fukuoka, Japan.  
 SOURCE: International journal of immunopharmacology, (1990) 12 (7) 729-36.  
 Journal code: 7904799.  
 ISSN: 0192-0561.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199104  
 ENTRY DATE: Entered STN: 19910428  
 Last Updated on STN: 19960129

Entered Medline: 19910408  
 AB N2-[(N-acetylmuramoyl)-L-alanyl-D-isoglutaminyl]-N6-stearoyl-L-\*\*\*lysine\*\*\* (MDP-Lys(L18)), muroctasin is an immunopotentiating substance. Neutrophilia and elevated levels of colony-stimulating factor (CSF) in peripheral blood were previously found after the administration of this compound in both mice and humans. To specify the type of CSF and

to elucidate the mechanisms of the neutrophilia, we cultured human peripheral blood mononuclear cells (PBMC) in the presence of muroctasin and measured the levels of granulocyte CSF ( \*\*\*G\*\*\* - \*\*\*CSF\*\*\* ) in the culture supernatants using our sensitive enzyme-linked immunosorbent assay. \*\*\*G\*\*\* - \*\*\*CSF\*\*\* is an active hematopoietic growth factor specific for cells of a neutrophilic lineage, and muroctasin was found to significantly augment the \*\*\*G\*\*\* - \*\*\*CSF\*\*\* production from PBMC in vitro (P less than 0.01). Furthermore, production of \*\*\*G\*\*\* - \*\*\*CSF\*\*\* from human PBMC in the presence of muroctasin was also supported by the Northern blot analysis using cDNA encoding \*\*\*G\*\*\* - \*\*\*CSF\*\*\* as a probe.

L8 ANSWER 10 OF 12 MEDLINE on STN  
 ACCESSION NUMBER: 90241309 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 1692219  
 TITLE: Stimulation of macrophages by muroctasin to produce colony-stimulating factors.  
 AUTHOR: Akahane K; Yamaguchi F; Kita Y; Une T; Osada Y  
 CORPORATE SOURCE: Research Institute, Daiichi Pharmaceutical Co. Ltd., Tokyo, Japan.  
 SOURCE: Arzneimittel-Forschung, (1990 Feb) 40 (2 Pt 1) 179-83.  
 Journal code: 0372660.  
 ISSN: 0004-4172.  
 PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199006  
 ENTRY DATE: Entered STN: 19900706  
 Last Updated on STN: 19960129

Entered Medline: 19900604  
 AB Murocatasin (N2-[(N-acetylmuramoyl)-L-alanyl-D-isoglutaminyl]-N6-stearoyl-L-\*\*\*lysine\*\*\*, MDP-Lys(L18)], a muramyl dipeptide derivative, has been reported to increase the number of peripheral granulocytes and monocytes after subcutaneous administration to animals and humans. When macrophage cell lines such as P388D1 and J774.1 cells were incubated with muroctasin in vitro, the production of colony-stimulating factor (CSF) from these cells was increased significantly. By Northern blot analysis, expression of the M-CSF gene, but not the \*\*\*G\*\*\* - \*\*\*CSF\*\*\* gene, in these macrophage cell lines was found to be enhanced by treatment with muroctasin. However, expression of the \*\*\*G\*\*\* - \*\*\*CSF\*\*\* gene in NFSa cells, a fibrosarcoma cell line established as a \*\*\*G\*\*\* -

\*\*\*CSF\*\*\* producer, was actually enhanced by incubation with the conditioned medium from P388D1 cells stimulated with murectasin. Thus, the hematopoietic activity of murectasin was suggested to be attributable primarily to the enhanced production of M-CSF from macrophages. The enhanced \*\*\*G\*\*\* - \*\*\*CSF\*\*\* production from NFSA cells may be due at least to interleukin-1 released from murectasin-stimulated macrophages.

L8 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1988:217269 CAPLUS  
DOCUMENT NUMBER: 108:217269  
TITLE: High-yield expression of modified human

\*\*\*granulocyte\*\*\*  
\*\*\*colony\*\*\* -  
\*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* gene in yeast and Escherichia coli  
INVENTOR(S): Cerretti, Douglas  
Pat; Cosman, David John; Gillis, Stephen; Mochizuki, Diane Yukiko; March, Carl Jack; Price, Virginia Lee; Tushinski, Robert J.; Urdal, David Lloyd  
PATENT ASSIGNEE(S): Immunex Corp., USA  
SOURCE: Eur. Pat. Appl., 38 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND     | DATE     |    |
|--|----------|----------|----|
| EP 243153  | A2       | 19871028 | EP |
| 1987-303509  | 19870422 |          |    |
| EP 243153  | A3       | 19880113 |    |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE  |          |          |    |
| ZA 8702705   | A        | 19871230 | ZA |
| 1987-2705  | 19870415 |          |    |
| DK 8702031   | A        | 19871023 | DK |
| 1987-2031  | 19870421 |          |    |
| JP 63000299  | A2       | 19880105 | JP |
| 1987-98465   | 19870421 |          |    |
| AU 8771844   | A1       | 19871029 | AU |
| 1987-71844   | 19870422 |          |    |
| AU 601727  | B2       | 19900920 |    |
| PRIORITY APPLN. INFO.:   |          |          |    |
| 1986-856643  | 19860422 |          | US |
|  |          |          | US |
| 1986-931458  | 19861114 |          |    |
| AB Human ***granulocyte***   |          |          |    |
| ***colony*** - ***stimulating***   |          |          |    |
| ***factor*** (hG-CSF) derivs. are recombinantly produced in high yields in yeast and Escherichia coli hosts. Plasmid pBC102.K22 was constructed contg. a site-specifically mutagenized hG-CSF gene (having the codon for |          |          |    |

arginine at position 22 replaced with that for \*\*\*lysine\*\*\* such that a KEX2 protease-sensitive site is eliminated) linked at the 5'-end via a KEX2 recognition site to an .alpha.-factor leader sequence and a sequence encoding an antigenic peptide capable of cleavage by bovine enterokinase. Yeast transformed with pBC102.K22 showed 5-fold higher expression than yeast transformed with vector contg. native hG-CSF protein gene.

L8 ANSWER 12 OF 12 MEDLINE on STN  
ACCESSION NUMBER: 86114130 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 3878862  
TITLE: Effects of poly(I,C)-LC on growth and differentiation of normal and malignant myelopoietic progenitor cells.  
AUTHOR: Schlick E; Bettens F; Ruffmann R; Chirigos M A; Hewetson P  
SOURCE: Journal of biological response modifiers, (1985 Dec) 4 (6) 628-33.  
Journal code: 8219656.  
ISSN: 0732-6580.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 198603  
ENTRY DATE: Entered STN: 19900321  
Last Updated on STN: 19900321

Entered Medline: 19860324  
AB Polyribonucleosinic-polycytidylic acid with poly-L- \*\*\*lysine\*\*\* stabilized with carboxymethylcellulose [poly(I,C)-LC] augmented, in a dose- and time-dependent manner, secretion of colony-stimulating factor (CSF) by peritoneal macrophages (M phi) and bone marrow cells (BMC). Optimal effects were found after 2 days of in vitro culture of the cells with 50 micrograms/ml of poly(I,C)-LC or 14 h to 3 days after a single intraperitoneal injection of 1-2 mg/kg of poly(I,C)-LC into normal mice. The increase in CSF secretion by M phi and BMC was paralleled in vivo by an increase in serum CSF levels, followed by a rise in committed granulocyte and M phi progenitor cells (GM-CFU-C), nucleated BMC, and blood leukocytes of myelomonocytic origin. Poly(I,C)-LC at doses greater than 4 mg/kg, however, were strongly myelosuppressive. In vitro treatment of undifferentiated myelomonocytic leukemia cells from the WEHI-3B cell line with 10-1,000 micrograms/ml of poly(I,C)-LC resulted in a significant increase in CSF secretion by the leukemic cells and a concomitant inhibition of their proliferation. Incubation of cells from the WEHI-3B D+ subline, which differentiate in response to GM-CSF or \*\*\*G\*\*\* -



\*\*\*CSF\*\*\* , with 50-100 micrograms/ml  
poly(I,C)-LC in agar cultures  
induced in approximately 45% of the  
leukemic colonies a differentiation  
into granulocytes and/or M phi.  
Poly(I,C)-LC, however, had no effect on  
differentiation of cells from the CSF  
unresponsive WEHI-3B D- subline.  
The CSF-inducing biological response  
modifier poly(I,C)-LC thus has the  
potential to stimulate growth and  
differentiation of normal, as well as  
differentiation of malignant myelopoietic  
progenitor cells.

=> D IBIB ABS L9 1-19

L9 ANSWER 1 OF 19 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN DUPLICATE 1  
ACCESSION NUMBER: 2004-316355 [29] WPIDS  
DOC. NO. NON-CPI: N2004-252026  
DOC. NO. CPI: C2004-120039  
TITLE: Device useful for  
transdermal delivery of active agent  
comprises a member  
having several stratum  
corneum-piercing  
microprotrusions, and a coating  
containing the agent and  
vasoconstrictor.  
DERWENT CLASS: B04 B05 B07 D16 P34  
INVENTOR(S): CORMIER, M; LIN, W;  
MATRIANO, J; YOUNG, W  
PATENT ASSIGNEE(S): (ALZA) ALZA CORP  
COUNTRY COUNT: 105  
PATENT INFORMATION:

|       | PATENT NO                            | KIND | DATE     | WEEK         |
|-------|--------------------------------------|------|----------|--------------|
| LA    | PG                                   |      |          |              |
| ----- |                                      |      |          |              |
| 32    | WO 2004030743                        | A2   | 20040415 | (200429)* EN |
|       | RW: AT BE BG CH CY CZ DE DK EA EE ES |      |          |              |
|       | FI FR GB GH GM GR HU IE IT KE LS     |      |          |              |
|       | LU MC MW MZ NL OA PT RO SD SE SI     |      |          |              |
|       | SK SL SZ TR TZ UG ZM ZW              |      |          |              |
|       | W: AE AG AL AM AT AU AZ BA BB BG BR  |      |          |              |
|       | BY BZ CA CH CN CO CR CU CZ DE DK     |      |          |              |
|       | DM DZ EC EE EG ES FI GB GD GE GH     |      |          |              |
|       | GM HR HU ID IL IN IS JP KE KG KP     |      |          |              |
|       | KR KZ LC LK LR LS LT LU LV MA MD     |      |          |              |
|       | MG MK MN MW MX MZ NI NO NZ OM PG     |      |          |              |
|       | PH PL PT RO RU SC SD SE SG SK SL     |      |          |              |
|       | SY TJ TM TN TR TT TZ UA UG UZ VC     |      |          |              |
|       | VN YU ZA ZM ZW                       |      |          |              |

APPLICATION DETAILS:

| PATENT NO     | KIND     | DATE |
|---------------|----------|------|
| -----         |          |      |
| WO 2004030743 | A2       | WO   |
| 2003-US30761  | 20030929 |      |

PRIORITY APPLN. INFO: US 2002-415121P  
20020930  
AN 2004-316355 [29] WPIDS

AB WO2004030743 A UPAB: 20040505  
NOVELTY - A device for transdermal  
delivery of an active agent (A)  
comprises a member having several stratum  
corneum-piercing  
microprotrusions (10) and a coating (16)  
disposed on the member. The  
coating comprises (A) and a  
vasoconstrictor.

DETAILED DESCRIPTION - An  
INDEPENDENT CLAIM is included for the  
manufacture of the device involving  
either (P1): applying an aqueous  
solution of (A) and the vasoconstrictor  
on the member and drying the  
solution to form a dry agent-containing  
coating the member; or (P2):  
etching a microprojection array on a  
sheet (12) to form (10); bending (10)  
so as to project from a plane of (12);  
coating at least first (10) with  
the aqueous solution; and drying the  
applied aqueous solution.

USE - For transdermal delivery of  
active agent e.g. calcitonin,  
desmopressin (claimed).

ADVANTAGE - The device facilitates  
and improves the transdermal  
delivery of the active agent as the  
microprojections pierce the skin where  
interstitial fluid contacts and dissolves  
the active agent and  
vasoconstrictor; reduces exposure of the  
agent to harsh environment of the  
digestive tract by avoiding systemic  
circulation; bypasses  
gastrointestinal drug metabolism and drug  
inactivation; and hence provides  
an alternative administration route for  
the active agents that cannot be  
delivered orally or intravenously. The  
device effectively minimizes  
bleeding during delivery of biological  
active agents due to the presence  
of vasoconstrictor; reduces possibility  
of inducing anaphylactic shock by  
rapid repeat exposure to the agent and  
increases the immunogenic response  
to the agent.

DESCRIPTION OF DRAWING(S) - The  
figure shows a perspective view of a  
microprojection array.

microprojections 10  
metal sheet 12  
openings 14  
coating 16  
pattern coating. 18  
Dwg.2/5

L9 ANSWER 2 OF 19 MEDLINE on STN  
ACCESSION NUMBER: 2004108441 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 14604969  
TITLE: Mobilization studies in  
mice deficient in either C3 or C3a  
receptor (C3aR) reveal a  
novel role for complement in  
retention of hematopoietic  
stem/progenitor cells in bone  
marrow.  
AUTHOR: Ratajczak Janina; Reca  
Ryan; Kucia Magda; Majka Marcin;

Allendorf Daniel J; Baran  
Jarek T; Janowska-Wieczorek Anna;  
Wetsel Rick A; Ross Gordon  
D; Ratajczak Mariusz Z  
CORPORATE SOURCE: Stem Cell Biology Program,  
James Graham Brown Cancer  
Center, University of  
Louisville, 529 South Jackson St, KY  
40202, USA..

mzrata01@louisville.edu

CONTRACT NUMBER: R01 AI25011 (NIAID)

R01 CA86412 (NCI)

R01 HL074333 (NHLBI)

R01 HL61796 (NHLBI)

SOURCE: Blood, (2004 Mar 15) 103  
(6) 2071-8.

Journal code: 7603509.

ISSN: 0006-4971.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL  
ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus

Journals; Priority Journals

ENTRY MONTH: 200404

ENTRY DATE: Entered STN: 20040305

Last Updated on STN:

20040416

Entered Medline: 20040415

AB The mechanisms regulating the  
homing/mobilization of hematopoietic  
stem/progenitor cells (HSPCs) are not  
fully understood. In our previous  
studies we showed that the complement C3  
activation peptide, C3a,  
sensitizes responses of HSPCs to stromal-  
derived factor 1 (SDF-1). In  
this study, mobilization was induced with  
\*\*\*granulocyte\*\*\*

\*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*

\*\*\*factor\*\*\* ( \*\*\*G\*\*\* -

\*\*\*CSF\*\*\* ) in both C3-deficient (C3-  
/-) and C3a receptor-deficient  
(C3aR-/-) mice as well as in wild-type  
(wt) mice in the presence or  
absence of a C3aR antagonist, SB 290157.

The data indicated (1)  
significantly increased \*\*\*G\*\*\* -

\*\*\*CSF\*\*\* -induced mobilization in  
C3-/- and C3aR-/- mice compared with wt  
mice, (2) significantly

accelerated and enhanced \*\*\*G\*\*\* -

\*\*\*CSF\*\*\* -induced mobilization in  
wt, but not in C3-/- or C3aR-/-, mice  
treated with SB 290157, and (3)

deposition of C3b/iC3b fragments onto the  
viable bone marrow (BM) cells of

\*\*\*G\*\*\* - \*\*\*CSF\*\*\* -treated

animals. Furthermore, mobilization  
studies performed in chimeric mice

revealed that wt mice reconstituted  
with C3aR-/- BM cells, but not C3aR-/-  
mice reconstituted with wt BM

cells, are more sensitive to \*\*\*G\*\*\* -

\*\*\*CSF\*\*\* -induced

mobilization, suggesting that C3aR

deficiency on graft-derived cells is

responsible for this increased

mobilization. Hence we suggest that C3 is

activated in mobilized BM into C3a and

C3b, and that the C3a-C3aR axis

plays an important and novel role in  
retention of HSPCs (by counteracting  
mobilization) by increasing their  
responsiveness to SDF-1, the  
concentration of which is reduced in BM  
during mobilization. The C3a-C3aR  
axis may prevent an uncontrolled release  
of HSPCs into peripheral blood.  
These data further suggest that the C3aR  
antagonist SB 290157 could be  
developed as a drug to mobilize HSPCs for  
transplantation.

L9 ANSWER 3 OF 19 WPIDS COPYRIGHT 2004

THOMSON DERWENT on STN

ACCESSION NUMBER: 2003-421352 [39] WPIDS

DOC. NO. CPI: C2003-110999

TITLE: Preparation of spray-  
dried, drug-containing particles

useful for pulmonary

delivery of drug and for treating

disease involves

modulating the charge density of the

particles.

DERWENT CLASS: B04 B07 D16

INVENTOR(S): LEHRMAN, S R; STEVENSON,  
C; YANG, B

PATENT ASSIGNEE(S): (INHA-N) INHALE

THERAPEUTIC SYSTEMS INC

COUNTRY COUNT: 101

PATENT INFORMATION:

| LA    | PATENT NO                           | KIND | DATE     | WEEK         |
|-------|-------------------------------------|------|----------|--------------|
| PG    |                                     |      |          |              |
| ----- |                                     |      |          |              |
| ----  | WO 2003035028                       | A1   | 20030501 | (200339)* EN |
| 22    |                                     |      |          |              |
|       | RW: AT BE BG CH CY DE DK EA EE ES   |      |          |              |
|       | FI FR GB GH GM GR IE IT KE LS LU    |      |          |              |
|       | MC MW MZ NL OA PT SD SE SK SL SZ    |      |          |              |
|       | TR TZ UG ZM ZW                      |      |          |              |
|       | W: AE AG AL AM AT AU AZ BA BB BG BR |      |          |              |
|       | BY BZ CA CH CN CO CR CU CZ DE DK    |      |          |              |
|       | DM DZ EC EE ES FI GB GD GE GH GM    |      |          |              |
|       | HR HU ID IL IN IS JP KE KG KP KR    |      |          |              |
|       | KZ LC LK LR LS LT LU LV MA MD MG    |      |          |              |
|       | MK MN MW MX MZ NO NZ OM PH PL PT    |      |          |              |
|       | RO RU SD SE SG SI SK SL TJ TM TN    |      |          |              |
|       | TR TT TZ UA UG US UZ VC VN YU ZA    |      |          |              |
|       | ZM ZW                               |      |          |              |

APPLICATION DETAILS:

| PATENT NO   | KIND |
|-------------|------|
| APPLICATION | DATE |

|               |          |    |
|---------------|----------|----|
| -----         |          |    |
| WO 2003035028 | A1       | WO |
| 2002-US33016  | 20021016 |    |

PRIORITY APPLN. INFO: US 2001-330073P  
20011019

AN 2003-421352 [39] WPIDS

AB WO2003035028 A UPAB: 20030619

NOVELTY - Preparation (M) of spray-dried,  
drug containing particles

comprising combining an aqueous solution  
with a drug and an optional

excipient, and spray drying the solution to form the spray-dried, drug-containing particles, is new.

DETAILED DESCRIPTION - In M, the aqueous solution has a pH that is different from the effective pI of the combination of the drug and the excipient. The net charge is associated with the drug and optional excipient as a result of an absolute difference between the pH and the pI.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - M is useful for producing spray-dried, drug-containing particles; in the treatment of disease (claimed) useful for pulmonary delivery of drug.

ADVANTAGE - The formulation is stable and the dispersibility of the formulation can be maintained over 12-weeks; exhibits a drop in emitted dose of not more than 25% over 12-weeks; has moisture content of 6 wt. %.

The mass median aerodynamic diameter (MMAD) of the spray-dried drug-containing particles is 0.1 - 5 mu m. The bulk density of the formulation is 0.1 - 2 g/cm<sup>3</sup>. The method improves, maintains and optimizes the dispersibility of the particles. The formulation shows improvement in aerosol properties, thus reducing costly drug losses to the inhalation device; reducing the amount administered due to high aerosolization efficiency, and reducing the number of inhalations per day by increasing the amount of aerosolized drug that reaches the lungs of the patient.

Dwg.0/0

L9 ANSWER 4 OF 19 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN  
ACCESSION NUMBER: 2002-415697 [44] WPIDS  
CROSS REFERENCE: 2002-404689 [43]; 2002-425749 [45]; 2002-527345 [56]  
DOC. NO. CPI: C2002-117304  
TITLE: New synthetic protein, useful for inducing erythropoiesis or apoptosis or reducing inflammation, comprising pseudoamino acid residue with a ribosomally-specified amino acid sidechain attached to thiol.  
DERWENT CLASS: B04  
INVENTOR(S): BOTTI, P; BRADBURN, J A; CHEN, S; CRESSMAN, S; HUNTER, C L; KENT, S B H;  
KOCHENDOERFER, G; LOW, D W;  
WILKEN, J G  
PATENT ASSIGNEE(S): (GRYP-N) GRYPHON SCI; (GRYP-N) GRYPHON THERAPEUTICS INC; (BOTT-I) BOTTI P; (BRAD-I) BRADBURN J A; (CHEN-I) CHEN S; (CRES-I) CRESSMAN S; (HUNT-I) HUNTER C L; (KENT-I) KENT S B H; (KOCH-I) KOCHENDOERFER G G; (LOWD-I) LOW D W

COUNTRY COUNT: 84  
PATENT INFORMATION:

| PATENT NO                            | KIND | DATE     | WEEK         |
|--------------------------------------|------|----------|--------------|
| LA PG                                |      |          |              |
| WO 2002020034                        | A1   | 20020314 | (200244)* EN |
| 110                                  |      |          |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB |      |          |              |
| GH GM GR IE IT KE LS LU MC MW MZ     |      |          |              |
| NL OA PT SD SE SL SZ TR TZ UG ZW     |      |          |              |
| W: AL AM AT AU AZ BA BB BG BR BY CA  |      |          |              |
| CH CN CU CZ DE DK EE ES FI GB GE     |      |          |              |
| GH HU IL IS JP KE KG KP KR KZ LC     |      |          |              |
| LK LR LS LT LU LV MD MG MK MN MW     |      |          |              |
| MX NO NZ PL PT RO RU SD SE SG SI     |      |          |              |
| SK SL TJ TM TR TT UA UG US UZ VN     |      |          |              |
| YU ZW                                |      |          |              |
| AU 2001073388                        | A    | 20020322 | (200251)     |
| EP 1315513                           | A2   | 20030604 | (200337) EN  |
| R: AL AT BE CH CY DE DK ES FI FR GB  |      |          |              |
| GR IE IT LI LT LU LV MC MK NL PT     |      |          |              |
| RO SE SI TR                          |      |          |              |
| NO 2003001047                        | A    | 20030508 | (200343)     |
| NO 2003001048                        | A    | 20030508 | (200343)     |
| NO 2003001049                        | A    | 20030508 | (200343)     |
| KR 2003046411                        | A    | 20030612 | (200370)     |
| US 2003208046                        | A1   | 20031106 | (200374)     |
| KR 2003057529                        | A    | 20030704 | (200377)     |
| KR 2003061784                        | A    | 20030722 | (200381)     |
| CN 1457257                           | A    | 20031119 | (200412)     |
| ZA 2003000315                        | A    | 20040331 | (200426)     |
| 114                                  |      |          |              |

APPLICATION DETAILS:

| PATENT NO     | KIND     | DATE |
|---------------|----------|------|
| APPLICATION   |          |      |
| WO 2002020034 | A1       | WO   |
| 2001-US21935  | 20010712 |      |
| AU 2001073388 | A        | AU   |
| 2001-73388    | 20010712 |      |
| EP 1315513    | A2       | EP   |
| 2001-952657   | 20010712 |      |
| 2001-US21935  | 20010712 |      |
| NO 2003001047 | A        | WO   |
| 2001-US21930  | 20010712 |      |
| 2003-1047     | 20030306 | NO   |
| NO 2003001048 | A        | WO   |
| 2001-US21935  | 20010712 |      |
| 2003-1048     | 20030306 | NO   |
| NO 2003001049 | A        | WO   |
| 2001-US21928  | 20010712 |      |
| 2003-1049     | 20030306 | NO   |
| KR 2003046411 | A        | KR   |
| 2003-702085   | 20030213 |      |
| US 2003208046 | A1       | WO   |
| 2001-US21935  | 20010712 |      |
| 2003-332386   | 20030108 | US   |
| KR 2003057529 | A        | KR   |
| 2003-702774   | 20030226 |      |
| KR 2003061784 | A        | KR   |
| 2003-702773   | 20030226 |      |

CN 1457257 A CN  
2001-815290 20010712  
ZA 2003000315 A ZA  
2003-315 20030113

FILING DETAILS:

PATENT NO KIND  
PATENT NO  
-----

-----  
AU 2001073388 A Based on WO  
2002020034  
EP 1315513 A2 Based on WO  
2002020034

PRIORITY APPLN. INFO: US 2000-236377P  
20000929; US

20000908; US 2000-231339P

20030108 2003-332386

AN 2002-415697 [44] WPIDS  
CR 2002-404689 [43]; 2002-425749 [45]; 2002-  
527345 [56]  
AB WO 200220034 A UPAB: 20040421  
NOVELTY - Synthetic protein (I)  
containing a pseudo-amino acid (paa)  
residue in which the sidechain residue is  
-SRA, where Ra is an optionally  
substituted terminal portion (or its  
\*\*\*analog\*\*\* ) of a  
ribosomally-specified amino acid (raa)  
side chain.

DETAILED DESCRIPTION - INDEPENDENT  
CLAIMS are also included for:

(1) Treatment of human diseases by  
administering at least one (I), of  
monomer molecular weight over 25 kD, that  
mimics the biological activity  
of a ribosomally specified, bioactive  
human protein receptor (or  
fragment), protein receptor ligand (or  
fragment), or a cytokine;

(2) A method, designated 'pseudo-  
native chemical ligation', for  
synthesizing a polypeptide of formula  
(Ia); and

(3) A polypeptide of formula (Ia).  
Q and W = one or more additional  
amino acids (aa);  
aaN and aaC = N- and C-terminal aa;  
and

aax and aay = internal aa with  
sidechains x and y.

ACTIVITY - Erythropoietic;  
Antiinflammatory; Angiogenic; Cytostatic.

A modified form of human  
erythropoietin (EPO) containing  
S-carboxymethylated Cys at position 89  
had in vitro ED50 in human UT-7  
(megakaryocytic leukemia) cells of 1570  
pM; compare 32.5 pM for  
recombinant human EPO.

MECHANISM OF ACTION - None given.

USE - (I), which have the activity  
of protein receptors, or their  
ligands, or of cytokines, are useful in  
human medicine, e.g. for inducing  
erythropoiesis; inducing or reducing  
inflammation; initiating angiogenesis

or vascularization; inducing apoptosis  
and modulating the cell cycle.

ADVANTAGE - (I) can be produced by a  
chemical ligation method that:

(1) is applicable to a wide variety  
of amino acid residues,

(poly)peptides and other polymers;

(2) uses an easily removed thiol-  
containing auxiliary; and

(3) connects molecules through a  
native amide bond. Selected polymers  
can be attached at user-defined positions  
through selected types of bonds.

Selected polymers can be attached at  
user-defined positions through

selected types of bonds. Compared with  
native proteins, (I) may be more

stable or have different specificities  
for substrates, inhibitors,

receptors, ligands etc.

Dwg.0/7

L9 ANSWER 5 OF 19 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-731683 [79] WPIDS

DOC. NO. NON-CPI: N2002-576838

DOC. NO. CPI: C2002-207188

TITLE: Device for transdermally  
delivering agent, has member

having stratum-corneum  
piercing microprotrusions

dry-coated with aqueous  
solution having preset viscosity

and contains active  
agent having preset aqueous

solubility.

DERWENT CLASS: B07 D22 P34

INVENTOR(S): CORMIER, M J N; DADDONA,  
P E; NYAM, K; YOUNG, W A

PATENT ASSIGNEE(S): (CORM-I) CORMIER M J N;  
(DADD-I) DADDONA P E; (NYAM-I)

NYAM K; (YOUN-I) YOUNG W

A; (ALZA) ALZA CORP

COUNTRY COUNT: 95

PATENT INFORMATION:

|                                     | PATENT NO                            | KIND | DATE     | WEEK        |
|-------------------------------------|--------------------------------------|------|----------|-------------|
| LA                                  | PG                                   |      |          |             |
| -----                               |                                      |      |          |             |
|                                     | US 2002128599                        | A1   | 20020912 | (200279)*   |
| 19                                  | WO 2002094368                        | A1   | 20021128 | (200280) EN |
|                                     | RW: AT BE CH CY DE DK EA ES FI FR GB |      |          |             |
| GH GM GR IE IT KE LS LU MC MW MZ    |                                      |      |          |             |
| NL OA PT SD SE SL SZ TR TZ UG ZW    |                                      |      |          |             |
| W: AE AG AL AM AT AU AZ BA BB BG BR |                                      |      |          |             |
| BY BZ CA CH CN CR CU CZ DE DK DM    |                                      |      |          |             |
| DZ EE ES FI GB GD GE GH GM HR HU    |                                      |      |          |             |
| ID IL IN IS JP KE KG KP KR KZ LC    |                                      |      |          |             |
| LK LR LS LT LU LV MA MD MG MK MN    |                                      |      |          |             |
| MW MX MZ NO NZ PL PT RO RU SD SE    |                                      |      |          |             |
| SG SI SK SL TJ TM TR TT TZ UA UG    |                                      |      |          |             |
| UZ VN YU ZA ZW                      |                                      |      |          |             |
|                                     | NO 2003001875                        | A    | 20030623 | (200348)    |
|                                     | EP 1333880                           | A1   | 20030813 | (200355) EN |
|                                     | R: AL AT BE CH CY DE DK ES FI FR GB  |      |          |             |
| GR IE IT LI LT LU LV MC MK NL PT    |                                      |      |          |             |
| RO SE SI TR                         |                                      |      |          |             |
|                                     | KR 2003060922                        | A    | 20030716 | (200381)    |
|                                     | BR 2001014909                        | A    | 20040203 | (200413)    |

HU 2003002924 A1 20031229 (200413)

APPLICATION DETAILS:

| PATENT NO<br>APPLICATION | KIND<br>DATE   |    |
|--------------------------|----------------|----|
| US 2002128599            | A1 Provisional | US |
| 2000-244038P             | 20001026       |    |
| 2001-45842               | 20011026       | US |
| WO 2002094368            | A1             | WO |
| 2001-US51496             | 20011026       | WO |
| NO 2003001875            | A              | WO |
| 2001-US51496             | 20011026       | NO |
| 2003-1875                | 20030425       | EP |
| EP 1333880               | A1             | EP |
| 2001-273947              | 20011026       | WO |
| 2001-US51496             | 20011026       | KR |
| KR 2003060922            | A              | BR |
| 2003-705755              | 20030425       | WO |
| BR 2001014909            | A              | WO |
| 2001-14909               | 20011026       | HU |
| 2001-US51496             | 20011026       |    |
| HU 2003002924            | A1             |    |
| 2001-US51496             | 20011026       |    |
| 2003-2924                | 20011026       |    |

FILING DETAILS:

| PATENT NO     | KIND        |    |
|---------------|-------------|----|
| EP 1333880    | A1 Based on | WO |
| 2002094368    |             |    |
| BR 2001014909 | A Based on  | WO |
| 2002094368    |             |    |
| HU 2003002924 | A1 Based on | WO |
| 2002094368    |             |    |

PRIORITY APPLN. INFO: US 2000-244038P  
20001026; US

2001-45842  
20011026  
AN 2002-731683 [79] WPIDS  
AB US2002128599 A UPAB: 20021209  
NOVELTY - Device for transdermally  
delivering an active agent comprises a  
member having several stratum corneum-  
piercing microprotrusions (10)  
dry-coated with an aqueous solution. The  
solution contains a potent active  
agent when administered in an amount less  
than 1 mg. The active agent has  
an aqueous solubility of greater than 50  
mg/ml and the aqueous solution  
has a viscosity of less than 500  
centipoise.

DETAILED DESCRIPTION - An  
INDEPENDENT CLAIM is also included for a  
method of making a device for  
transdermally delivering an agent.

USE - For administering and  
enhancing transdermal delivery of an

active agent such as adrenocorticotrophic  
hormone (1-24), calcitonin,  
desmopressin, luteinizing hormone  
releasing hormone (LHRM), goserelin,  
leuprolide, buserelin, triptorelin, LHRH  
\*\*\*analogs\*\*\*, PTH,  
vasopressin, deamino (val4, D-Arg8),  
\*\*\*arginine\*\*\* vasopressin,  
interferon- alpha, interferon- beta,  
interferon- gamma, follicle  
stimulating hormone (FSH), erythropoietin  
(EPO), granulocyte macrophage  
colony stimulating factor (GM-CSF),  
\*\*\*granulocyte\*\*\* \*\*\*colony\*\*\*  
\*\*\*stimulating\*\*\* \*\*\*factor\*\*\* (  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\*),  
interleukin-10 (1L-10), glucagon, growth  
hormone releasing factor (GRF) or  
its \*\*\*analogs\*\*\* (claimed).

ADVANTAGE - The delivery device  
eliminates the difficulty of  
inconvenience, painful, uncomfortable  
procedure and reduces the  
possibility of infection. Many  
therapeutic proteins can be easily  
administered transdermally, since  
proteins are susceptible to  
gastrointestinal degradation and exhibit  
poor gastrointestinal uptake.  
Transdermal delivery bypasses  
gastrointestinal drug metabolism, reduces  
first-pass effects, and avoids the  
possible deactivation by digestive and  
liver enzymes.

DESCRIPTION OF DRAWING(S) - The  
figure shows the perspective view of  
a portion of microprotrusion array.  
Microprotrusions 10  
Dwg.1/7

L9 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2004  
ACS on STN

ACCESSION NUMBER: 2002:832643 CAPLUS  
DOCUMENT NUMBER: 137:304765

TITLE: Compositions and  
methods for reestablishing gene  
transcription through  
inhibition of DNA methylation  
and histone

deacetylase  
INVENTOR(S): Dimartino, Jorge  
PATENT ASSIGNEE(S): Supergen, Inc., USA  
SOURCE: PCT Int. Appl., 54  
PP.

CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.      | KIND   | DATE     |    |
|-----------------|--|----------|----|
| APPLICATION NO. | DATE   |          |    |
| WO 2002085400   | A1   | 20021031 | WO |
| 2002-US12092    | 20020419   |          |    |
| W:              | AE, AG, AL, AM, AT, AU, AZ, BA,<br>BB, BG, BR, BY, BZ, CA, CH, CN,<br>CO, CR, CU, CZ, DE, DK, DM, DZ,<br>EC, EE, ES, FI, GB, GD, GE, GH, |          |    |

GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VN, YU, ZA, ZM,  
ZW, AM, AZ, BY, KG, KZ, MD, RU,  
TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL,  
SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR,  
IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG  
EP 1389127 A1 20040218 EP  
2002-731396 20020419  
R: AT, BE, CH, DE, DK, ES, FR, GB,  
GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY,  
AL, TR  
PRIORITY APPLN. INFO.: US  
2001-841744 A1 20010424 WO

2002-US12092 W 20020419  
AB Compns. and methods are provided for  
treating diseases assocd. with  
aberrant silencing of gene expression  
such as cancer by reestablishing the  
gene expression through inhibition of DNA  
hypomethylation and histone  
deacetylase. The method comprises:  
administering to a patient suffering  
from the disease a therapeutically  
effective amt. of a DNA methylation  
inhibitor such as a cysteine  
\*\*\*analog\*\*\* such as decitabine, in  
combination with an effective amt. of  
histone deacetylase inhibitor such  
as hydroxamic acid, cyclic peptide,  
benzamide, butyrate, and depudecin.  
REFERENCE COUNT: 5 THERE ARE 5  
CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL  
CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 2002:616193 CAPLUS  
DOCUMENT NUMBER: 137:174933  
TITLE: Modulated-release  
polymeric silicate particles for  
aerosol delivery  
INVENTOR(S): Zhu, Yaping;  
Stefanos, Simon; Adjei, Akwete L.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl.  
Publ., 11 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.      | KIND     | DATE     |    |
|-----------------|----------|----------|----|
| APPLICATION NO. | DATE     |          |    |
| US 2002110528   | A1       | 20020815 | US |
| 2001-784673     | 20010215 |          |    |
| US 6544497      | B2       | 20030408 |    |

WO 2002066011 A1 20020829 WO  
2002-US4286 20020213  
W: AE, AG, AL, AM, AT, AU, AZ, BA,  
BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ,  
EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, UZ, VN, YU, ZA, ZM, ZW,  
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL,  
SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR,  
IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG  
EP 1361860 A1 20031119 EP  
2002-724942 20020213  
R: AT, BE, CH, DE, DK, ES, FR, GB,  
GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY,  
AL, TR

PRIORITY APPLN. INFO.: US  
2001-784673 A 20010215 WO  
2002-US4286 W 20020213  
AB A modulated release aerosol formulation  
comprises a polymer, e.g. silica  
gel or fumed silica gel, having a  
selected medicament assocd. there with,  
a fluid carrier for carrying and  
delivering the construct and a  
stabilizer. The polymer is present in an  
amt. of about 0.000001-10%. A  
medicament comprises a protein or peptide  
with a mol. size of about 1-150  
kD, such as insulin, amylin, an  
interleukin, an interferon, heparin, a  
thrombolytic, an antitrypsin, a hormone,  
a growth factor, an enzyme, etc.  
A stabilizer is selected from dipeptides  
and tripeptides. A method of  
treating in a human or an animal a  
condition capable of treatment by  
dermal, sublingual, buccal, oral, or  
nasal application comprises  
administering an aerosol formulation in a  
canister equipped with a metered  
dose valve.

L9 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 2002:616190 CAPLUS  
DOCUMENT NUMBER: 137:174931  
TITLE: Modulated release  
particles for pharmaceutical lung  
delivery  
INVENTOR(S): Adjei, Akwete L.;  
Zhu, Yaping  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl.  
Publ., 11 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND   | DATE     |       |
|--|--|----------|-------|
| APPLICATION NO.  | DATE   |          |       |
| US 2002110525  | A1   | 20020815 | US    |
| 2001-784556  | 20010215   |          |       |
| US 6551578   | B2   | 20030422 |       |
| WO 2002066008  | A1   | 20020829 | WO    |
| 2002-US3992  | 20020207   |          |       |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |  |          |       |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |  |          |       |
| EP 1361857   | A1   | 20031119 | EP    |
| 2002-709465  | 20020207   |          |       |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  |  |          |       |
| PRIORITY APPLN. INFO.:   |  |          | US    |
| 2001-784556  | A  | 20010215 |       |
| 2002-US3992 W 20020207   |  |          | WO    |
| OTHER SOURCE(S): MARPAT 137:174931   |  |          |       |
| AB A modulated release aerosol formulation is disclosed. The formulation comprises a polysaccharide polymer having a selected drug assocd., a fluid carrier for carrying and delivering the construct and a stabilizer. The stabilizer is selected from the group consisting of an amino acid e.g., a monoaminocarboxylic acid, a monoaminodicarboxylic acid and a diaminomono-carboxylic acid. The polysaccharide can be from alginic acid or a salt, e.g., guar gum, gum karaya, agar, carrageenan, and cellulose. |  |          |       |
| L9 ANSWER 9 OF 19 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  |  |          |       |
| ACCESSION NUMBER:  | 2002-075094  | [10]     | WPIDS |
| DOC. NO. CPI:  | C2002-022327   |          |       |
| TITLE:   | Protein conjugates that selectively target certain tissues and organs useful for treating and preventing various diseases, comprises glucose-aminoglycan-targeting domain conjugated to a therapeutic protein. |          |       |
| DERWENT CLASS:   | B04 D16  |          |       |
| INVENTOR(S):   | SEREDA, T J; WIEBE, D J; WILLIAMS, A M; WOLOSKI, B M R   |          |       |
| PATENT ASSIGNEE(S):  | (CANG-N) CANGENE CORP; (SERE-I) SEREDA T J; (WIEB-I)   |          |       |

WIEBE D J; (WILL-I)  
WILLIAMS A M; (WOLO-I) WOLOSKI B M R  
COUNTRY COUNT: 96  
PATENT INFORMATION:

| PATENT NO  | KIND | DATE     | WEEK         |
|--|------|----------|--------------|
| LA   | PG   |          |              |
| WO 2001080899  | A2   | 20011101 | (200210)* EN |
| 121  |      |          |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW   |      |          |              |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW |      |          |              |
| AU 2001050212  | A    | 20011107 | (200219)     |
| EP 1274461   | A2   | 20030115 | (200306) EN  |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR   |      |          |              |
| US 2004037834  | A1   | 20040226 | (200416)     |

# APPLICATION DETAILS:

| PATENT NO     | KIND     | DATE |    |
|---------------|----------|------|----|
| APPLICATION   |          |      |    |
| WO 2001080899 | A2       |      | WO |
| 2001-CA533    | 20010420 |      |    |
| AU 2001050212 | A        |      | AU |
| 2001-50212    | 20010420 |      |    |
| EP 1274461    | A2       |      | EP |
| 2001-923439   | 20010420 |      |    |
| 2001-CA533    | 20010420 |      | WO |
| US 2004037834 | A1       |      | WO |
| 2001-CA533    | 20010420 |      |    |
| 2003-257377   | 20030610 |      | US |

# FILING DETAILS:

| PATENT NO   | KIND |                |    |
|---|------|----------------|----|
| PATENT NO   |      |                |    |
| AU 2001050212   | A    | Based on       | WO |
| 2001080899  |      |                |    |
| EP 1274461  | A2   | Based on       | WO |
| 2001080899  |      |                |    |
| PRIORITY APPLN. INFO: US 2000-198613P   |      |                |    |
| 20000420; US  |      |                |    |
| 2003-257377   |      |                |    |
| 20030610  |      |                |    |
| AN 2002-075094  | [10] | WPIDS          |    |
| AB WO 200180899   | A    | UPAB: 20020213 |    |
| NOVELTY - A conjugate (I) comprising an hyaluronic acid (HA)-binding protein (HABP1) or peptide (HABP2) contiguous with, or coupled to a polypeptide conjugated to a therapeutic agent, is new. |      |                |    |

DETAILED DESCRIPTION - INDEPENDENT  
CLAIMS are also included for the  
following:

(1) an isolated and purified nucleic  
acid sequence (II) encoding an  
HABP1 or peptide in sequence with a  
therapeutic agent;

(2) preparation (M1) of (I) by  
inserting a first nucleotide sequence  
encoding a HABP1 directly linked to a  
second nucleotide sequence encoding  
a therapeutic protein into a suitable  
vector, expressing the vector in an  
acceptable host, purifying conjugate  
molecule from host or expression  
medium;

(3) preparing a pharmaceutical for  
treating an animal in need of  
treatment, comprising the preparation of  
(I) and suspending (I) in a  
carrier, diluent or excipient;

(4) pharmaceutical composition (III)  
comprising (I).

ACTIVITY - Immunosuppressive;  
cytostatic.

MECHANISM OF ACTION - Gene therapy.

USE - (I) is useful for altering in  
vivo the distribution of a  
therapeutic agent comprising  
administering (I) to the animal where  
conjugate molecule will distribute  
primarily in tissues and organs  
containing high levels of endogenous HA;  
and for treating mammal with a  
disorder where a diseased tissue of the  
mammal contains high level of HA  
(claimed).

ADVANTAGE - Lower therapeutic  
dosages required also translates into  
lower immunogenicity of the conjugated  
protein as compared to the native  
protein. As a result, conjugates  
improves patient compliance and reduce  
direct and indirect costs associated with  
the drug substance and its  
administration. Conjugates allows for the  
use, where appropriate, of  
lower, safer, dosages as compared to the  
conventional dosage requirements  
for the unconjugated corresponding  
therapeutic agent. Conjugate molecules  
has an increased half-life and potency,  
resulting in prolonged circulation  
of the molecule, efficient distribution  
into the target tissues, and  
increased bioavailability.  
Dwg.0/0

L9 ANSWER 10 OF 19 WPIDS COPYRIGHT 2004  
THOMSON DERWENT on STN  
ACCESSION NUMBER: 2001-596689 [67] WPIDS  
CROSS REFERENCE: 2001-557522 [62]  
DOC. NO. NON-CPI: N2001-444889  
DOC. NO. CPI: C2001-176515  
TITLE: Formulation to treat  
e.g. asthma comprises a protein or  
peptide medicament in a  
fluid carrier and a stabilizer  
selected from an amino  
acid or its derivative.  
DERWENT CLASS: B04 D16 P34

INVENTOR(S): ADJEI, A L; STEFANOS, S;  
SUN, J Z; ZHU, Y  
PATENT ASSIGNEE(S): (AERO-N) AEROPHARM  
TECHNOLOGY INC  
COUNTRY COUNT: 94  
PATENT INFORMATION:

| PATENT NO                            | KIND | DATE     | WEEK         |
|--------------------------------------|------|----------|--------------|
| LA PG                                |      |          |              |
| -----                                |      |          |              |
| WO 2001060420                        | A1   | 20010823 | (200167)* EN |
| 26                                   |      |          |              |
| RW: AT BE CH CY DE DK EA ES FI FR GB |      |          |              |
| GH GM GR IE IT KE LS LU MC MW MZ     |      |          |              |
| NL OA PT SD SE SL SZ TR TZ UG ZW     |      |          |              |
| W: AE AG AL AM AT AU AZ BA BB BG BR  |      |          |              |
| BY BZ CA CH CN CR CU CZ DE DK DM     |      |          |              |
| DZ EE ES FI GB GD GE GH GM HR HU     |      |          |              |
| ID IL IN IS JP KE KG KP KR KZ LC     |      |          |              |
| LK LR LS LT LU LV MA MD MG MK MN     |      |          |              |
| MW MX MZ NO NZ PL PT RO RU SD SE     |      |          |              |
| SG SI SK SL TJ TM TR TT TZ UA UG     |      |          |              |
| UZ VN YU ZA ZW                       |      |          |              |
| AU 2001027559                        | A    | 20010827 | (200176)     |
| EP 1292283                           | A1   | 20030319 | (200322) EN  |
| R: AL AT BE CH CY DE DK ES FI FR GB  |      |          |              |
| GR IE IT LI LT LU LV MC MK NL PT     |      |          |              |
| RO SE SI TR                          |      |          |              |
| JP 2003524646                        | W    | 20030819 | (200356)     |
| 30                                   |      |          |              |
| MX 2002007187                        | A1   | 20021201 | (200377)     |
| CN 1440298                           | A    | 20030903 | (200380)     |

#### APPLICATION DETAILS:

| PATENT NO     | KIND     | DATE |
|---------------|----------|------|
| -----         |          |      |
| WO 2001060420 | A1       | WO   |
| 2001-US117    | 20010102 |      |
| AU 2001027559 | A        | AU   |
| 2001-27559    | 20010102 |      |
| EP 1292283    | A1       | EP   |
| 2001-901681   | 20010102 |      |
|               |          | WO   |
| 2001-US117    | 20010102 |      |
| JP 2003524646 | W        | JP   |
| 2001-559515   | 20010102 |      |
|               |          | WO   |
| 2001-US117    | 20010102 |      |
| MX 2002007187 | A1       | WO   |
| 2001-US117    | 20010102 |      |
|               |          | MX   |
| 2002-7187     | 20020724 |      |
| CN 1440298    | A        | CN   |
| 2001-807195   | 20010102 |      |

#### FILING DETAILS:

| PATENT NO     | KIND        |
|---------------|-------------|
| -----         |             |
| AU 2001027559 | A Based on  |
| 2001060420    |             |
| EP 1292283    | A1 Based on |
| 2001060420    |             |
| JP 2003524646 | W Based on  |
| 2001060420    |             |



MX 2002007187 A1 Based on WO  
2001060420

PRIORITY APPLN. INFO: US 2000-702195  
20001030; US 2000-177982P  
20000125; US 2000-177987P  
20000125

AN 2001-596689 [67] WPIDS  
CR 2001-557522 [62]  
AB WO 200160420 A UPAB: 20031211

NOVELTY - Medicinal formulation comprises  
(a) a protein or peptide  
medicament having about 1 - 150 K Dalton  
molecular size, (b) a fluid  
carrier for containing (a) and (c) a  
stabilizer selected from amino  
acid(s) and/or derivative(s).  
DETAILED DESCRIPTION - INDEPENDENT  
CLAIMS are included for the  
following:  
(1) preparing a stable medicinal  
aerosol formulation which comprises  
combining (a), (b) and (c) and dispersing  
them (preferably using cosolvent  
in both steps);  
(2) a formulation which is in an  
aerosol canister equipped with a  
metered dose valve;  
(3) a method of stabilizing a  
suspension aerosol formulation  
comprising a propellant and a protein or  
peptide medicament which  
comprises incorporating a stabilizer to  
prevent settling, creaming, or  
flocculation of the formulation; and  
(4) a metered dose inhaler which  
contains a medicinal aerosol  
formulation comprising (a), propellant  
and (c).  
ACTIVITY - Antiallergic;  
Antiinflammatory; Antiasthmatic;  
Antidiabetic; Antianginal.  
MECHANISM OF ACTION - None given.  
USE - To effect bronchodilation in a  
human or an animal or to treat a  
condition e.g. asthma, chronic  
obstructive pulmonary disease, allergic  
rhinitis, rhinitis, diabetes, angina or  
local infection, cystic fibrosis,  
pneumonia, pain management immune  
deficiency, hormonal therapy and  
erythropoiesis.  
ADVANTAGE - There is no settling,  
creaming or flocculation of the  
medicine and it is reproducible  
(claimed). The medicine is stable and does  
not require cosolvents or surfactants.  
Dwg.0/0

L9 ANSWER 11 OF 19 MEDLINE on STN  
ACCESSION NUMBER: 2001490320 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 11532576  
TITLE: Effect of poly-L-  
\*\*\*arginine\*\*\* on the nasal absorption  
of FITC-dextran of  
different molecular weights and  
recombinant human  
\*\*\*granulocyte\*\*\* \*\*\*colony\*\*\* -

\*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* (rhG-CSF) in rats.  
AUTHOR: Miyamoto M; Natsume H;  
Sato I; Ohtake K; Yamaguchi M;  
Kobayashi D; Sugibayashi  
K; Morimoto Y  
CORPORATE SOURCE: Analytical Division,  
Nissan Chemical Co. Ltd., 722-1  
Tsuboi, Funabashi, Chiba  
274-0062, Japan.  
SOURCE: International journal of  
pharmaceutics, (2001 Sep 11) 226  
(1-2) 127-38.  
Journal code: 7804127.  
ISSN: 0378-5173.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL  
ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200110  
ENTRY DATE: Entered STN: 20010905  
Last Updated on STN:  
20011029  
Entered Medline: 20011025

AB The effect of poly-L- \*\*\*arginine\*\*\*  
(poly-L-Arg) on the in vivo nasal  
absorption of FITC-dextran with a mean  
molecular weight ranging from 4.3  
to 167 kDa and recombinant human  
\*\*\*granulocyte\*\*\* \*\*\*colony\*\*\* -  
\*\*\*stimulating\*\*\* \*\*\*factor\*\*\*  
(rhG-CSF) in rats were studied. When  
FITC-dextran were co-administered  
intranasally with 1.0 w/v% poly-L-Arg  
of different molecular weight (MW, ca.  
45.5 and 92 kDa, poly-L-Arg (50)  
and poly-L-Arg (100)), the  
bioavailability (F(infinity)) increased  
markedly compared with that after  
administration of FITC-dextran alone.  
However, the F(infinity) decreased  
exponentially with the increasing  
molecular weight of FITC-dextran. There  
was no significant difference  
between the enhanced nasal absorption of  
FITC-dextran achieved by the  
co-administration of poly-L-Arg (50) and  
poly-L-Arg (100). Moreover, the  
relationship between the F(infinity) and  
the molecular weight of  
FITC-dextran indicated that the  
molecular weight of protein drugs, which  
exhibited efficient absorption with poly-  
L-Arg, was about 20 kDa, when the  
lower limit of bioavailability for  
developing a potent transnasal delivery  
system was assumed to be about 10%.  
Indeed, the nasal absorption of  
rhG-CSF, which has a molecular weight of  
18.8 kDa, was also increased  
after co-administration of 1.0 w/v% poly-  
L-Arg (50) and the F(infinity)  
was about 11%. It seems likely that  
poly-L-Arg can be used to provide  
adequate nasal absorption of various  
protein drugs which have a molecular  
weight of about 20 kDa, thereby allowing  
the successful development of a  
variety of transnasal drug delivery  
systems.

L9 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2004  
 ACS on STN  
 ACCESSION NUMBER: 1995:951242 CAPLUS  
 DOCUMENT NUMBER: 124:84915  
 TITLE: Fusion products of  
 interleukin 3 with hematopoietic  
 growth factors and  
 their manufacture for therapeutic  
 use  
 INVENTOR(S): Bauer, Christopher  
 S.; Abrams, Mark Allen;  
 Sarah Ruth; Caparon, Marie Helena;  
 Easton, Alan Michael;  
 Klein, Barbara Kure; Mc, Kearn  
 John Patrick; Olins,  
 Peter O.; Paik, Kumnan; Thomas,  
 John Warren  
 PATENT ASSIGNEE(S): G. D. Searle and Co.,  
 USA  
 SOURCE: PCT Int. Appl., 447  
 PP.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 17  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 9521254  | A1   | 19950810 | WO 1995-US1185  | 19950202 |
| W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US |      |          |                 |          |
| RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| US 6057133  | A    | 20000502 | US 1994-192325  | 19940204 |
| AU 9518356  | A1   | 19950821 | US 1995-18356   | 19950202 |
| AU 697433   | B2   | 19981008 | EP 742826       | A1       |
| EP 742826   | A1   | 19961120 | US 1995-910141  | 19950202 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE   |      |          |                 |          |
| BR 9506733  | A    | 19970923 | US 1995-6733    | 19950202 |
| JP 10502801   | T2   | 19980317 | US 1995-520671  | 19950202 |
| RO 118016   | B1   | 20021230 | US 1996-1594    | 19950202 |
| US 6022535  | A    | 20000208 | US 1995-469318  | 19950606 |
| US 6030812  | A    | 20000229 | US 1995-468609  | 19950606 |
| US 6361977  | B1   | 20020326 | US 1995-446872  | 19950606 |
| NO 9603225  | A    | 19960925 | US 1996-3225    | 19960801 |

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| FI 9603072   | A    | 19960802 | US 1996-3072    | 19960802 |
| US 6436387   | B1   | 20020820 | US 1996-762227  | 19961209 |
| US 2003185790  | A1   | 20031002 | US 2002-83446   | 20020226 |
| PRIORITY APPLN. INFO.: US  |      |          |                 |          |
| US 1994-192325   | A2   | 19940204 | US 1992-981044  | B2       |
| US 1992-981044   | B2   | 19921124 | US 1993-US11197 | A2       |
| US 1993-US11197  | A2   | 19931122 | US 1995-US1185  | W        |
| US 1995-US1185   | W    | 19950202 | US 1995-411795  | A2       |
| US 1995-411795   | A2   | 19950406 | US 1995-446872  | A2       |
| US 1995-446872   | A2   | 19950606 | US 1996-762227  | A3       |
| AB Human interleukin-3 (hIL-3) variants fused with other colony stimulating factors (CSF), cytokines, lymphokines, interleukins, hematopoietic growth factors or IL-3 variants are described. These variants and fusion proteins are intended for use in the stimulation of hematopoiesis in support of chemotherapy of cancer, notably of leukemias and B-lymphomas. The IL-3 variants may have 1-14 N- or 1-15 C-terminal deletions and have 4-26 addnl. amino acid substitutions. A linker peptide derived from an Ig hinge region can be used to join the domains of the fusion protein and a proteinase cleavage site may be incorporated into the linker region. The construction of expression vectors for manuf. of these fusion proteins in Escherichia coli is described. A no. of fusion proteins were tested and found to show the biol. activities expected of both moieties. |      |          |                 |          |

L9 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2004  
 ACS on STN  
 ACCESSION NUMBER: 1995:615193 CAPLUS  
 DOCUMENT NUMBER: 123:25669  
 TITLE: Peptides derived from  
 hemopoietic growth factors as  
 antagonists of the  
 growth factors  
 INVENTOR(S): Vadas, Mathew  
 Alexander; Lopez, Angel Francisco;  
 Shannon, Mary Frances  
 PATENT ASSIGNEE(S): Medvet Science Pty.  
 Ltd., Australia  
 SOURCE: PCT Int. Appl., 60  
 PP.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
| -----      |      |      |                 |      |

WO 9504075 A1 19950209 WO  
 1994-AU432 19940728  
 W: AM, AT, AU, BB, BG, BR, BY, CA,  
 CH, CN, CZ, DE, DK, ES, FI, GB,  
 GE, HU, JP, KE, KG, KP, KR, KZ,  
 LK, LT, LU, LV, MD, MG, MN, MW,  
 NL, NO, NZ, PL, PT, RO, RU, SD,  
 SE, SI, SK, TJ, TT, UA, US, UZ, VN  
 RW: KE, MW, SD, AT, BE, CH, DE, DK,  
 ES, FR, GB, GR, IE, IT, LU, MC,  
 NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, ML, MR, NE, SN, TD, TG  
 CA 2168261 AA 19950209 CA  
 1994-2168261 19940728  
 AU 9473414 A1 19950228 AU  
 1994-73414 19940728  
 AU 690128 B2 19980423  
 EP 715633 A1 19960612 EP  
 1994-922181 19940728  
 R: AT, BE, CH, DE, DK, ES, FR, GB,  
 GR, IE, IT, LI, LU, MC, NL, PT, SE  
 JP 09501154 T2 19970204 JP  
 1994-505450 19940728  
 US 5939063 A 19990817 US  
 1996-591438 19960408  
 NZ 329156 A 20000728 NZ  
 1997-329156 19971111  
 AU 9934974 A1 19990909 AU  
 1999-34974 19990611  
 PRIORITY APPLN. INFO.: AU  
 1993-186 A 19930728 AU  
 1994-4772 A 19940330 WO  
 1994-AU432 W 19940728 AU  
 1996-61153 A3 19960621 NZ  
 1997-269766 A1 19971111  
 AB Modified and variant forms of hemopoietic  
 growth factors (HGF) capable of  
 acting as antagonists to the  
 corresponding native hemopoietic growth  
 factors are described for use in  
 ameliorating aberrant effects caused by  
 the native mols. A modified hemopoietic  
 growth factor (HGF) is  
 characterized by being in unglycosidated  
 form and has an .alpha.-helical  
 domain with one or more of any exposed  
 acidic amino acids substituted with  
 a basic amino acid. The preferred HGF  
 are granulocyte-macrophage  
 colony-stimulating factor (GM-CSF),  
 interleukins (IL)-2, IL-3, IL-4, IL-5,  
 IL-6, IL-7, IL-9, IL-10, \*\*\*G\*\*\* -  
 \*\*\*CSF\*\*\* and erythropoietin  
 (EPO). The synthesis and biol. activity  
 of a no. of such peptides is  
 demonstrated.  
 L9 ANSWER 14 OF 19 MEDLINE on STN  
 ACCESSION NUMBER: 95136368 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 7530603  
 TITLE: Targeted disruption of the  
 NF-IL6 gene discloses its  
 essential role in bacteria  
 killing and tumor cytotoxicity  
 by macrophages.  
 AUTHOR: Tanaka T; Akira S; Yoshida  
 K; Umemoto M; Yoneda Y;

Shirafuji N; Fujiwara H;  
 Suematsu S; Yoshida N; Kishimoto T  
 CORPORATE SOURCE: Institute for Molecular  
 and Cellular Biology, Osaka  
 University, Japan.  
 SOURCE: Cell, (1995 Jan 27) 80 (2)  
 353-61.  
 Journal code: 0413066.  
 ISSN: 0092-8674.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL  
 ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199503  
 ENTRY DATE: Entered STN: 19950314  
 Last Updated on STN:  
 19960129  
 Entered Medline: 19950301  
 AB To investigate the role of NF-IL6 in  
 vivo, we have generated NF-IL6 (-/-)  
 mice by gene targeting. NF-IL6 (-/-)  
 mice were highly susceptible to  
 infection by *Listeria monocytogenes*.  
 Electron microscopic observation  
 revealed the escape of a larger number of  
 pathogens from the phagosome to  
 the cytoplasm in activated macrophages  
 from NF-IL6 (-/-) mice.  
 Furthermore, the tumor cytotoxicity of  
 macrophages from NF-IL6 (-/-) mice  
 was severely impaired. However,  
 cytokines involved in macrophage  
 activation, such as TNF and IFN gamma,  
 were induced normally in NF-IL6  
 (-/-) mice. Nitric oxide (NO) formation  
 was induced to a similar extent  
 in macrophages from both wild-type and  
 NF-IL6 (-/-) mice. These results  
 demonstrate the crucial role of NF-IL6 in  
 macrophage bactericidal and  
 tumoricidal activities as well as the  
 existence of a NO-independent  
 mechanism of these activities. We also  
 demonstrate that NF-IL6 is  
 essential for the induction of \*\*\*G\*\*\*  
 - \*\*\*CSF\*\*\* in macrophages  
 and fibroblasts.  
 L9 ANSWER 15 OF 19 BIOSIS COPYRIGHT 2004  
 BIOLOGICAL ABSTRACTS INC. on STN  
 ACCESSION NUMBER: 1996:39129 BIOSIS  
 DOCUMENT NUMBER: PREV199698611264  
 TITLE: Alternative procedures for  
 reducing blood and blood  
 component usage.  
 AUTHOR(S): Healy, C.  
 CORPORATE SOURCE: Hobart Pathol., 63  
 Salamanca Place, Hobart, TAS 7000,  
 Australia  
 SOURCE: Australian Journal of  
 Medical Science, (1995) Vol. 16, No.  
 4, pp. 126-134.  
 ISSN: 1038-1643.  
 DOCUMENT TYPE: Article  
 General Review;  
 (Literature Review)  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 26 Jan 1996  
 Last Updated on STN: 13  
 Mar 1996

AB Blood transfusion is a therapy that is accompanied by inherent risks.

These risks are numerous and potentially serious. Adopting technologies

and strategies which minimize risk must be among the most important future developments in transfusion science.

This review covers the alternative procedures, including chemical and physical means, of avoiding or reducing blood and blood component usage. The relative merits of the use of erythropoietin, the colony stimulating factors, 1-deamino-8-D-

\*\*\*arginine\*\*\* vasopressin, epsilon amino caproic acid, aprotinin, tranexamic acid and the recombinant clotting factors are discussed. Also examined is the future role of gene therapy, the changing practices in surgical technique and a reduction of the transfusion trigger. The benefits which each alternative offers in different medical and surgical

situations, their use as a single therapy, in combination with or as adjuncts to other medical and surgical interventions are also discussed.

The application of these technologies and strategies to minimize exposure to donor blood products are currently being used. However, many of the new technologies need further evaluation through larger and more standardized studies to assess their efficacy and long term safety.

L9 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2004  
ACS on STN  
ACCESSION NUMBER: 1993:578977 CAPLUS  
DOCUMENT NUMBER: 119:178977  
TITLE: Structure-function  
analysis of the C-terminal segment  
of human interleukin-

6  
AUTHOR(S): Li, Xiaomao; Rock,  
Fernando; Chong, Pele; Cockle,  
Stephen; Keating,  
Armand; Ziltener, Hermann; Klein,  
Michel  
CORPORATE SOURCE: Connaught Cent.  
Biotechnol. Res., Willowdale, ON, M2R  
3T4, Can.  
SOURCE: Journal of Biological  
Chemistry (1993), 268(30),  
22377-84  
CODEN: JBCHA3; ISSN:

0021-9258  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB It has been hypothesized that  
interleukin-6 (IL-6) and \*\*\*granulocyte\*\*\*  
- \*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* ( \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\* ) may fold as 4-.alpha.-  
helix bundle proteins. To probe the  
functional role of the putative 4th  
helical segment of IL-6 (D-helix), a  
chimeric IL-6/ \*\*\*G\*\*\* - \*\*\*CSF\*\*\*  
\*\*\*analog\*\*\* contg. the

predicted D-helix of \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\* as well as a panel of IL-6  
D-helix point mutants were analyzed for  
their resp. secondary structure,  
antigenicity, and receptor binding and  
biol. activities. The putative  
D-helix of IL-6 could not be replaced by  
its \*\*\*G\*\*\* - \*\*\*CSF\*\*\*

counterpart in spite of their high degree  
of similarity and thus is  
indispensable for the antigenic and  
functional integrity of the IL-6  
receptor binding site. Conversely, the  
grafting of the \*\*\*G\*\*\* -

\*\*\*CSF\*\*\* D-helix did not confer any  
\*\*\*G\*\*\* - \*\*\*CSF\*\*\* activity  
to IL-6. A synthetic helical peptide  
contg. the IL-6 D-helix was  
inactive, even when mixed with or linked  
to a peptide from the A-helix  
known to be involved in the active site.  
However, the conserved residues

F173, R179, and R182 found in the D-  
helices of both IL-6 and \*\*\*G\*\*\* -  
\*\*\*CSF\*\*\* critically contribute to  
the architecture of the IL-6 active  
site. Indeed, mutation of F173 or R179  
markedly affected IL-6 receptor

binding and biol. activities, but not the  
conformation of a major  
neutralization epitope. Furthermore,  
substitution of R182 resulted in a  
significant unfolding of the D-helix  
accompanied by a drastic loss in IL-6  
antigenicity and functional activities.  
Nevertheless, residues other than  
F173, R179, and R182 also contribute to  
IL-6 specificity.

L9 ANSWER 17 OF 19 MEDLINE on STN  
ACCESSION NUMBER: 93328601 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 8335573  
TITLE: Tumor necrosis factor-  
alpha inhibits endothelium-dependent  
relaxation.  
AUTHOR: Greenberg S; Xie J; Wang  
Y; Cai B; Kolls J; Nelson S; Hyman  
A; Summer W R; Lippton H  
CORPORATE SOURCE: Department of Medicine,  
Louisiana State University Medical  
Center, New Orleans 70112.  
CONTRACT NUMBER: HL-11802 (NHLBI)  
SOURCE: Journal of applied  
physiology (Bethesda, Md. : 1985), (1993  
May) 74 (5) 2394-403.  
Journal code: 8502536.

ISSN: 8750-7587.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL  
ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199308  
ENTRY DATE: Entered STN: 19930903  
Last Updated on STN:  
19980206

Entered Medline: 19930826  
AB Tumor necrosis factor-alpha (TNF-alpha)  
stimulates nitric oxide (NO) in  
vascular endothelium by induction of the  
enzyme NO synthase II (NOS II).

We examined the effects of TNF-alpha on 1) endothelium-dependent (EDR) and endothelium-independent (EIR) relaxation and 2) contraction of bovine intralobar pulmonary arteries (BPA) and veins (BPV) in vitro.

Acetylcholine (ACh), bradykinin (BK), histamine, and A23187 produced EDR of BPA contracted with a 50% effective concentration of U-46619 (15 nM), because relaxation was abolished by endothelium-rubbing and attenuated by L-NG-mono-methylarginine (L-NMMA; 300 microm). TNF-alpha (0.00417, 0.0417, 0.417, and 1.25 micrograms/ml) incubated with BPA for 60 min inhibited EDR of the BPA to ACh, BK, and histamine. The effects of TNF required 30 min for onset. Recovery of EDR occurred 3-4 h after washout of TNF-alpha. Pentoxifylline (1 microm) did not affect ACh-induced EDR but selectively reversed TNF-alpha-mediated inhibition of ACh-induced EDR.

TNF-alpha-mediated inhibition of EDR was not reversible by L-NMMA, an inhibitor of NOS I and NOS II, the cyclooxygenase inhibitor ibuprofen, or CV-3908 (1 microm), a platelet-activating factor antagonist. The inhibitory effect of TNF-alpha on EDR was not mediated by nonspecific sensitization of the endothelium to human protein because recombinant human \*\*\*granulocyte\*\*\* \*\*\*colony\*\*\* - \*\*\*stimulating\*\*\* \*\*\*factor\*\*\* (10, 50, and 500 x 10(3) U/ml) did not affect EDR of BPA.

The effect of TNF-alpha was specific for release of NO from the endothelium of BPA because TNF-alpha did not affect 1) EDR of BPV to ACh, BK, or ATP; 2) EIR of BPA or BPV to nitroprusside; and 3) contraction of either BPA or BPV to KCl, U-46619, histamine, norepinephrine, or serotonin. Thus TNF-alpha appears to selectively inhibit receptor-mediated EDR and NO release in BPA. TNF-alpha-mediated inhibition of EDR differs from that of L-\*\*\*arginine\*\*\* -based inhibitors and may represent an endogenous physiological mechanism of regulation of NO in the endothelium.

L9 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:183893 CAPLUS  
DOCUMENT NUMBER: 118:183893  
TITLE: Platelet-activating factor secreted by DDAVP-treated

monocytes mediates von Willebrand factor release from endothelial cells

AUTHOR(S): Hashemi, S.; Palmer, D. S.; Aye, M. T.; Ganz, P. R.  
CORPORATE SOURCE: Blood Transfus. Serv., Canadian Red Cross, Ottawa, ON, K1S 3E2, Can.

SOURCE: Journal of Cellular Physiology (1993), 154(3), 496-505  
CODEN: JCLLAX; ISSN:

0021-9541

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The authors have previously shown that although DDAVP (1-diamino-8-D-\*\*\*arginine\*\*\* vasopressin), a synthetic \*\*\*analog\*\*\* of the natural hormone \*\*\*arginine\*\*\* vasopressin, does not directly promote release of von Willebrand factor (vWf) from human umbilical vein endothelial cells (ECs), enhanced release does occur when ECs were exposed to either

monocytes or to supernatants recovered from DDAVP-treated monocytes. In the present study, exposure of monocytes to DDAVP did not increase secretion of interleukins (IL)-1.beta., IL-6, IL-8, tumor necrosis factor (TNF-.alpha.), growth factors \*\*\*G\*\*\* - \*\*\*CSF\*\*\* (granulocyte-), GM-CSF (granulocyte, monocyte-colony stimulating factor), prostaglandins (PG) E2, PGF2.alpha., or PGI2 or purine nucleotides such as ATP and ADP.

However, increased levels of platelet-activating factor (PAF) were secreted by DDAVP-treated monocytes in a time- and dose-dependent manner that pos. correlated with the enhancement in vWf release from ECs. Moreover, this effect could also be elicited when lipid exts. of these supernatants or purified PAF were added directly to ECs. This response could be inhibited with (.+.)-trans-2,5-bis(3,4,5-trimethoxyphenyl)-1,3-dioxolane, a specific PAF receptor antagonist, when the ECs were exposed to supernatants from DDAVP-treated monocytes or to pure PAF. Thus, enhanced secretion of PAF from monocytes is one mechanism whereby DDAVP can provoke release of vWf from ECs.

Moreoever, this effect could also be elicited when lipid exts. of these supernatants or purified PAF were added directly to ECs. This response could be inhibited with (.+.)-trans-2,5-bis(3,4,5-trimethoxyphenyl)-1,3-dioxolane, a specific PAF receptor antagonist, when the ECs were exposed to supernatants from DDAVP-treated monocytes or to pure PAF. Thus, enhanced secretion of PAF from monocytes is one mechanism whereby DDAVP can provoke release of vWf from ECs.

L9 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:217269 CAPLUS  
DOCUMENT NUMBER: 108:217269  
TITLE: High-yield expression of modified human

\*\*\*granulocyte\*\*\* \*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*

\*\*\*factor\*\*\* gene in yeast and

INVENTOR(S): Escherichia coli Cerretti, Douglas Pat; Cosman, David John; Gillis, Stephen; Mochizuki, Diane Yukiko; March, Carl Jack; Price, Virginia Lee; Tushinski, Robert J.; Urdal, David Lloyd

PATENT ASSIGNEE(S): Immunex Corp., USA  
SOURCE: Eur. Pat. Appl., 38 PP.

CODEN: EPXXDW  
DOCUMENT TYPE: Patent

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.                         | KIND     | DATE     |    |
|------------------------------------|----------|----------|----|
| APPLICATION NO.                    | DATE     |          |    |
| EP 243153                          | A2       | 19871028 | EP |
| 1987-303509                        | 19870422 |          |    |
| EP 243153                          | A3       | 19880113 |    |
| R: AT, BE, CH, DE, ES, FR, GB, GR, |          |          |    |
| IT, LI, LU, NL, SE                 |          |          |    |
| ZA 8702705                         | A        | 19871230 | ZA |
| 1987-2705                          | 19870415 |          |    |
| DK 8702031                         | A        | 19871023 | DK |
| 1987-2031                          | 19870421 |          |    |
| JP 63000299                        | A2       | 19880105 | JP |
| 1987-98465                         | 19870421 |          |    |
| AU 8771844                         | A1       | 19871029 | AU |
| 1987-71844                         | 19870422 |          |    |
| AU 601727                          | B2       | 19900920 |    |
| PRIORITY APPLN. INFO.:             |          |          | US |
| 1986-856643                        | 19860422 |          |    |
|                                    |          |          | US |

1986-931458 19861114  
AB Human \*\*\*granulocyte\*\*\*  
\*\*\*colony\*\*\* - \*\*\*stimulating\*\*\*  
\*\*\*factor\*\*\* (hG-CSF) derivs. are  
recombinantly produced in high yields  
in yeast and Escherichia coli hosts.  
Plasmid pBC102.K22 was constructed  
contg. a site-specifically mutagenized  
hG-CSF gene (having the codon for  
\*\*\*arginine\*\*\* at position 22  
replaced with that for lysine such that a  
KEX2 protease-sensitive site is  
eliminated) linked at the 5'-end via a  
KEX2 recognition site to an .alpha.-  
factor leader sequence and a sequence  
encoding an antigenic peptide capable of  
cleavage by bovine enterokinase.  
Yeast transformed with pBC102.K22 showed  
5-fold higher expression than  
yeast transformed with vector contg.  
native hG-CSF protein gene.